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Thirty-eighth annual survey of well-known business and industrial firms

EMPLOYMENT TRENDS for college graduates in business

Northwestern Endicott Report 1984

by
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The Placement Center
Northwestern University
Evanston, Illinois

THE NORTHWESTERN ENDICOTT REPORT

TRENDS IN THE EMPLOYMENT
OF
COLLEGE AND UNIVERSITY GRADUATES
IN
BUSINESS AND INDUSTRY

1984

THIRTY-EIGHTH ANNUAL REPORT

A Survey of 262 Well-known Business
and Industrial Concerns

by

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INTRODUCTORY STATEMENT

This is the thirty-eighth annual survey of policy and practice in the employment of college and university graduates in business and industry. A total of 262 well-known companies responded to the inquiry. All but a few are large- or medium-sized national corporations. Almost all of these companies have recruited college graduates for many years. Reports came from 26 states and Washington, D.C., representing all major regions of the nation. Survey forms were returned from November 7 to November 29, 1983.

The economic outlook for our responding corporations was optimistic with 71% of the corporations predicting a better year for business in 1984. Though the tempo was genuinely upbeat, those with a more cautious perspective wondered about the size of the federal deficit and interest rates. Would the purchase of automobiles and other durables continue in an upward trend? Would construction flounder if the cost of money did not drop? Reasons could be found for either course, but one had to recognize that it was an election year and that traditionally bodes well, even for the chary.

The major purpose of this report is to supply information, which will be of value and interest to colleges and universities as well as to employers. An important continuing feature of the surveys is an estimate by the responding companies of the number of graduates to be employed during the coming year and the starting salaries to be offered.

The willingness of hundreds of corporate personnel executives to supply information, often at considerable cost in time and effort, is greatly apppreciated and care is taken not to identify the responding companies in any way.

SOURCES OF DATA

The responding companies represent a variety of business interests. They are classified as follows:

Automobile/Aircraft	9
Banking/ Investments	19
Building Materials/Construction	10
Carriers/Transportation	6
Computers/Business Machines	12
Consumer Goods	6
Drugs/Chemical	23
Electronics	18
Food/Grain Processing	15
Insurance	3
Light Manufacturing	32
Machinery/Heavy Equipment	11
Oil/Gas	13
Paper/Paper Products	4
Printing/Publishing/Advertising	7
Public Accounting	10
Research/Engineering	10
Retail Sales/Mail Order	12
Steel/Other Metals	3
Textiles/Rubber/Glass	7
Utilities	22
Other	10

CORPORATE PERFORMANCE AND OUTLOOK

A general assessment of the current year's business and recruiting activity and the outlook for the next year.

* * *

CORPORATE PERFORMANCE IN 1983

BETTER THAN 1982	57%
ABOUT THE SAME AS 1982	25%
WORSE THAN 1982	18%

CORPORATE OUTLOOK FOR 1984

BETTER THAN 1983	71%
ABOUT THE SAME AS 1983	25%
WORSE THAN 1983	4%
THOSE WHO HAD A BETTER 1983 AND PREDICT AN EVEN BETTER 1984	47%

COLLEGE RECRUITING IN 1982-83

How did last year compare to a normal year?

RECRUITING LESS THAN NORMAL	62%
ABOUT NORMAL	21%
MUCH MORE THAN NORMAL	17%

If you curtailed your college recruiting, what means were used?

(a) No on-campus recruiting	29%
(b) Visited fewer campuses	18%
(c) Fewer interviews per campus	26%
(d) Offer-interview ratio lower	9%
Fewer campuses, interviews and offers (b-c-d)	21%
Fewer campuses and offers (b-d)	17%
Fewer campuses and interviews (b-c)	4%

CORPORATE RECRUITING FOR COLLEGE GRADUATES - CLASS OF 1984

	Bachelor's Degree	Master's Degree
Corporations with needs UP	65%	35%
Corporations with SAME as 1982	9%	47%
Corporations with needs DOWN	26%	18%
Total number of companies reporting	260	

THE EMPLOYMENT OF INEXPERIENCED COLLEGE GRADUATES DURING THE PAST YEAR AND FOR NEXT AS REPORTED BY 260 COMPANIES

	Past Year (1983)		Next Year (1984)	
BACHELOR'S LEVEL	No. Companies	No. Grads	No. Companies	No. Grads
Engineering	137	9,330	148	11,253
Accounting	111	3,578	123	4,455
Sales-Marketing	78	2,748	81	3,026
Business Administration	79	1,497	75	1,921
Liberal Arts	42	406	35	345
Computer	96	3,086	115	3,937
Chemistry	42	292	40	381
Mathematics or Statistics	43	311	35	257
Economics or Finance	47	489	44	466
Other Fields/Undesignated	48	2,044	42	2,574
TOTALS - Bachelor's Level		23,781		28,615

MASTER'S LEVEL				
Engineering	56	1,485	57	2,023
Other Technical Fields	42	909	36	1,146
MBA with Technical BS	49	768	49	891
MBA with Non-Technical BA	86	1,196	88	1,423
Accounting	22	237	26	340
Other Fields/Undesignated	27	416	20	574
TOTALS - Master's Level		5,011		6,397

Engineering:	Bachelor's Up for 1984....21%	Master's Up for 1984....36%
Non-Engineering:	Bachelor's Up for 1984....20%	Master's Up for 1984....24%
Totals:	Bachelor's Up for 1984....20%	Master's Up for 1984....28%

College Graduates to Be Hired at Various Salary Levels

Bachelor's Degree Class—1984

Field	1000 -1199	1200 -1299	1300 -1399	1400 -1499	1500 -1599	1600 -1699	1700 -1799	1800 -1899	1900 -1999	2000 -2099	2100 -2199
Engineering			1 (1)		5 (3)	4 (1)	69 (4)		540 (11)	1269 (17)	1491 (27)
Accounting		8 (5)	15 (1)	43 (8)	180 (21)	2438 (28)	1316 (26)	312 (17)	35 (4)	1 (1)	2 (1)
Sales-Marketing		144 (4)	18 (3)	470 (9)	891 (17)	310 (14)	184 (8)	777 (7)	34 (3)	7 (2)	17 (2)
Business Administration	15 (3)	146 (3)	118 (9)	246 (11)	109 (14)	335 (12)	595 (10)	208 (7)	26 (1)	47 (2)	
Liberal Arts		42 (3)	48 (6)	32 (3)	40 (8)	52 (4)	13 (3)	59 (3)		40 (1)	10 (1)
Computer	2 (1)		5 (1)	121 (5)	39 (5)	60 (8)	253 (14)	106 (6)	457 (13)	1000 (30)	573 (8)
Chemistry					22 (3)	40 (5)	2 (2)	47 (8)	75 (9)	11 (4)	2 (1)
Mathematics or Statistics			9 (3)		17 (3)	15 (2)	44 (6)	71 (8)	19 (3)	11 (2)	15 (2)
Economics or Finance		14 (3)	25 (3)	54 (4)	6 (3)	67 (9)	149 (10)	83 (6)	26 (2)	33 (2)	
Other Fields	7 (1)	1 (1)	30 (2)	29 (3)	30 (5)	28 (5)	36 (5)	85 (4)	384 (6)	17 (2)	2 (1)

Master's Degree Class—1984

Engineering										42 (2)	7 (2)
Other Technical Fields									20 (1)	180 (3)	17 (2)
MBA With Technical BS						4 (2)			253 (2)		11 (2)
MBA With Non-Technical BA						6 (2)	2 (1)		239 (4)	137 (5)	32 (6)
Accounting							3 (2)	18 (1)	169 (4)	89 (4)	18 (4)
Other Non-Technical Fields					6 (1)	2 (1)		3 (2)	25 (1)		30 (1)

Average Increase For:

Bachelor's Engineering	**3.5%**
Bachelor's Non-Engineering	**4.4%**
Master's Engineering	**2.1%**
Master's Business	**4.8%**
Other Master's	**4.4%**

Salary Increase %	Negative	.0
Frequency	25	111
% in Classification	4%	18%

2200 -2299	2300 -2399	2400 -2499	2500 -2599	2600 -2699	2700 -2799	2800 -2899	2900 -2999	3000 -3099	3100 -3199	3200 -3399	Average 1984*	Average 1983*	% Change
4351 (47)	908 (8)	2168 (13)	1 (1)		110 (1)						2237	2162	+ 3.5%
1 (1)			12 (1)								1681	1621	+ 3.7%
41 (2)											1635	1569	+ 4.2%
		8 (1)									1618	1594	+ 1.5%
											1612	1547	+ 4.2%
63 (6)	1120 (5)	15 (1)	1 (1)	2 (1)							2072	1958	+ 5.8%
11 (1)	116 (3)			1 (1)							2016	1959	+ 2.9%
18 (2)	32 (1)			1 (1)							1868	1722	+ 8.5%
											1707	1632	+ 4.6%
187 (3)											1928	1851	+ 4.2%

2 (2)	207 (7)	289 (12)	157 (11)	801 (11)	430 (4)	4 (1)	10 (1)	10 (1)			2580	2527	+ 2.1%
67 (6)	75 (3)	163 (9)	157 (3)	395 (3)	14 (3)					15 (1)	2430	2327	+ 4.4%
40 (6)	44 (4)	344 (9)	37 (4)	5 (1)	30 (4)	7 (3)	55 (2)	8 (2)	30 (2)	16 (2)	2369	2248	+ 5.4%
51 (9)	120 (8)	226 (8)	100 (8)	54 (5)	162 (9)	145 (6)	84 (6)	24 (2)			2397	2301	+ 4.2%
6 (1)	17 (4)	2 (1)	13 (3)		5 (2)						2040	1955	+ 4.3%
11 (3)	169 (4)	30 (1)	1 (1)	5 (2)			1 (1)	1 (1)			2281	2186	+ 4.3%

*Salary per month. Averages take into account the number of graduates to be hired at each level.
()Number of hiring companies in parentheses.

Distribution of Percentage Salary Increases

.01-.99	1.0-1.9	2.0-2.9	3.0-3.9	4.0-4.9	5.0-5.9	6.0-6.9	7.0-7.9	8.0-8.9	9.0-9.9	Above 10
12	32	63	84	76	86	62	21	12	12	29
2%	5%	10%	13%	12%	14%	10%	3%	2%	2%	5%

PERSONNEL PLANNING AND RECRUITING

The questions were designed to elicit information about the utilization of manpower planning as a part of the corporate planning process, the cause and effect relationships considered by the planners when college recruiting was cut back or continued, and what sources are used to fill corporate exempt personnel needs.

* * *

Is your college recruiting geared to the current business cycle or to a long-range manpower plan?

Current Business Cycle	60%
Long-range Manpower Plan	40%

Fifty percent (50%) of all firms stated that their college recruiting was primarily conducted on the basis of their position in the current business cycle, but they also had a long-range manpower plan which was considered.

Thirty-seven percent (37%) have a long-range plan and hire personnel accordingly.

Size, industry tradition and relative immunity from dramatic economic swings were factors in a corporation's adherance to a long-term plan in college recruiting. Long- and short-term hiring plans in some companies were separated by academic levels, undergraduate quotas were short-term and graduate, master's and doctorate plans were long-term. Some hired engineers for their current business, while non-tech, or managerial employment, was keyed to the long-range plan.

How long into the future does your manpower plan extend?

Two (2) years or less	44%
Three (3) to five (5) years	51%
Six (6) to ten (10) years	5%

How will drastic recruiting curtailment affect your long-range manpower plan?

A majority recognized that in three to five years there would be a lack of promotable talent. Some stated that a more serious shortage of trained personnel available for key positions would occur after five years. A few companies felt that the greatest loss would be in the technical area, not general management, when normal attrition became a more important influence on long-term needs.

Many corporations did not consider cutting back for one or two years a problem, since they would increase the recruiting of college graduates in subsequent years. A common solution, mentioned by many who recognized that a future critical need will arise, state that they would pay the price and hire experienced people from their competition when required. Corporations committed to a promote-from-within policy are reluctant to solve the problem in this fashion because of the deleterious impact on morale of present employees. Reorganization in some companies that are now operating with leaner management has reduced short- and long-range goals for the recruiting of college graduates.

PERSONNEL PLANNING AND RECRUITING

When there is a general economic slowdown, why do you continue college recruiting?

Firms not effected by the slow economic conditions sustained their recruiting program to meet both the short- and long-term needs. They found recruiting easier and were able to find more "quality" than ever before.

Organizations caught in the generalized slower business environment that kept on recruiting, though often at reduced levels, made statements like: "It's the best source for quality talent at the least cost per hire." "Long-term strategic goals dictate a continuing input of new talent." "We are absolutely committed to maintaining our management training program." "To meet anticipated future and technical needs." "It's investment spending."

What percentage of your hires in 1983-84 will come from campus recruiting?

TECHNICAL CAMPUS RECRUITING

Forty percent (40%) will recruit	0 - 25%
Fourteen percent (14%) will recruit	26 - 50%
Twenty-one percent (21%) will recruit	51 - 75%
Twenty-five percent (25%) will recruit	76 -100%

BUSINESS/NON TECHNICAL RECRUITING

Forty-four percent (44%) will recruit	0 - 25%
Fifteen percent (15%) will recruit	26 - 50%
Twenty-one percent (21%) will recruit	51 - 75%
Twenty percent (20%) will recruit	76 -100%

What percent of new exempt hires in 1983-84 will be experienced vs. inexperienced?

Experienced	57%
Inexperienced	43%

Fifty percent (50%) of the reporting corporations are recruiting more than 64% from experienced ranks.

What sources will you use to fill your exempt position needs in 1983-84?

College recruiting	35%	Executive recruiters	4%
Unsolicited resumes	10%	In-house training programs	6%
Employment agencies	12%	Newspaper advertising	19%
Referrals	11%	Other sources *	3%

*Government Agencies, Past Interns, Consulting Professors, Laid-off Employees, Transfers, Job Fairs, College Alumni Placement Offices, Trade Journals

CAREER COUNSEL FOR THE FRESHMAN

What advice, would you as a personnel professional, give a freshman undergraduate who is making his or her plans for the future?

* * *

1. Twenty-six percent(26%) advised a student to obtain work experience in a variety of career fields through part-time, summer, internship or co-op experiences. Become more focused in your chosen field through your work experiences.

   > "Get job experience while in college to gain a better understanding of business."

2. Take course work in business and technical areas, such as math, sciences and computer was recommended by 16%.

3. Ten percent (10%) urged a student to obtain occupational information and career counseling early in his or her decision making before determining a major. Read and talk to people in various careers and fields, utilize his or her Placement Center.

   > "Talk to as many persons as you can who are engaged in fields of your interest and also those in areas where there is a void in your personal experiences to find out the positive and negative aspects of each possible career opportunity."

   > "Research several alternative careers and make sure the chosen one not only offers excellent long-term opportunities, but also provides the type of responsibility from which personal satisfaction is derived. Understand your own personal needs."

4. Pursue your own interests based on your strengths and values. Do some self-assessment was suggested by 10% of all respondents.

   > "Identify your vocational interests and personal values and strive to integrate these toward academic disciplines which appear to be aimed at high growth industries and professional fields."

   > "Whatever you do, do with enthusiasm, or find something else to do."

5. Get good grades, according to eight percent (8%) of those polled.

6. Seven percent (7%) indicated the importance of developing oral and written communication skills.

   > "Besides becoming strong technically, work on your interpersonal and communication skills along with writing abilities in order to succeed. Know how to handle yourself socially."

7. Get a technical or business degree, not just course work, was suggested by seven percent (7%).

8. Set goals early and work for them realistically throughout college was advised seven percent (7%) of those polled.

> "The freshman should not only concentrate on being an excellent student but also a well rounded individual with a definite value system...don't lose sight of establishing goals and objectives that can be measured."

> "Establish goals with a definite course of study. The attitude that I should enjoy my college years and worry about employment later is totally unrealistic."

9. Six percent (6%) of the employers urged the student to become active in leadership roles through extracurricular activities.

10. Develop well rounded characteristics: motivation, discipline, assertion and flexibility suggested five percent (5%) of the respondents.

> "It's very important to learn (and to recognize what has been learned) from every experience. Smart, educated and sensitive people will always do well.

In any event:

> "Good luck."

> "Marry well."

> "The future is yours, revel in it!"

The cost of delaying your plans will only bring frustration at the end of your college career. Do things by design, not by default. Plan ahead, become informed. Take an active role, don't live or work vicariously. Explore as many different avenues as possible, you may not have as many opportunities once you are out of school!

* * *

RECRUITING OUTLOOK IN 1987-88

What do you think the demand for new college graduates will be in three to four years?

Increasing . . . . 68%   Leveling Off . . . 28%   Decreasing 4%

	Frequency of Response Demand		
In Areas of Specialization	Increasing	Leveling Off	Decreasing
Engineering	69%	27%	4%
Accounting & Business	48%	48%	4%
Computer Science	73%	23%	4%
Liberal Arts	20%	40%	40%
MBAs	27%	58%	15%

THE MBA - MYTHS AND REALITIES

The value of the MBA degree to the degree holder and to the employer is perhaps not as clear cut today as it was a few years ago. We asked the survey participants to respond to fifteen statements giving their company's and personal viewpoint on various issues concerning the MBA, its value, recruiting and subsequent performance of the MBA on the job.

* * *

Statement	Response Frequencies		
	Disagree or Strongly disagree	Neither Agree nor Disagree	Agree or Strongly agree
We're hiring more MBAs than 5 years ago.	41%	25%	34%
There is a surplus of MBAs entering the market.	4%	21%	75%
MBAs are well prepared to contribute to our firm.	24%	48%	29%
MBAs are too expensive.	13%	36%	51%
The MBA is the "union card" for entry into top management.	72%	16%	12%
MBA turnover is higher than we would like to see.	19%	60%	21%
New MBAs have unrealistic expectations which may lead to job dissatisfaction.	7%	26%	67%
MBA degrees will open doors during the job search that a BA will not.	21%	24%	55%
Hard work and intelligence will compensate for not having an MBA.	9%	25%	66%
MBA schools tend to instill short-term values.	14%	50%	36%
MBAs have stronger analytical skills than interpersonal skills.	14%	49%	37%
It is important to work for a few years before getting an MBA.	6%	25%	69%
We only recruit MBAs from the top 10 schools.	42%	21%	27%
It doesn't pay to get an MBA from a mediocre school.	31%	38%	31%
MBA turnover is higher than BA or BS turnover.	29%	52%	19%

Cross Tabulations

Of those who agreed that MBAs had unrealistic expectations (67%), only 27% of that group thought turnover was too high and 10% found it to be acceptable.

Of those who agreed that MBA turnover was too high (21%), 63% believed that it was higher than BA turnover. 12% felt that it was lower.

Of those who felt that MBA turnover was not too high (19%), 8% agreed that MBA turnover was higher than BA turnover, and 73% thought it was lower.

Of those who believed than an MBA will open doors (55%), 60% thought hard work and intelligence would compensate for not having an MBA degree, 11% thought it would not.

Of those who did not believe that an MBA degree will open doors (21%), 81% thought hard work and intelligence would compensate and 2% felt it would not.

Of those who are hiring more MBAs than they did 5 years ago (34%), 44% agreed that they were well prepared. 8% felt that they were not.

Of those who are not hiring more MBAs (41%), only 17% thought they were well prepared and 36% thought they were not.

Comments:

> "Organizations still hire MBAs as 'window dressing.' Definite strategic plans are not in place when the MBA is hired."
>
> "From my personal experience as a professional and an MBA, I feel that an MBA is not the only criteria for outstanding job performance and success within our organization. Just as important but initially less tangible, is an individual's personal attributes. Our most exemplary employees have been those that possess motivation, drive and appropriate education. All of these factors are critical to the success of an individual - possession of an MBA is not the only criteria."
>
> "Bachelor degree candidates with a high GPA and usable work experience do equally as well as MBA candidates."
>
> "We only recruit MBAs from the top 10 schools and expect them to contribute to the organization without going through a formal training program. For the most part this has been true in our organization. The turnover has not been extremely high, but there are instances of unrealistic expectations."
>
> "The MBA is an effective screening tool. One who graduates can be assumed to have the necessary intelligence needed to perform most assigned tasks. The development of interpersonal skills, however, does not seem to have much relationship to whether a person has received his/her MBA. We are interested in smart, mature individuals who have leadership traits and will develop people handling skills. If they also happen to have an MBA, so much the better."
>
> "They track more quickly through the training program, but they tend to leave if not promoted as quickly as they wish to be. They need more visibility faster than BAs."

It is interesting that cross tabulations between many of the statements defined two groups among the respondents: one that has had a favorable experience with MBAs and the other an unfavorable experience. It is difficult to ascertain why the respondents hold their opinions. It could be assumed that the cause lies on both sides of the issue. Are many MBAs actually unprepared to contribute to a firm in a substantial way, or do some firms have unrealistic conceptions of what a new MBA is capable of contributing? Do many MBAs have unrealistic expectations concerning advancement and visibility, or do some firms, where advancement is traditionally slow and where everyone must spend time paying dues, hire MBAs when they should hire bachelor's level candidates? Both "pro" and "con" groups believe that the MBA is not a "union card" and that hard work and intelligence will prevail over the span of a non-degreed candidate's career, so we could conclude that there is no built-in bias for or against MBAs in general. Perhaps the difficulty arises when firms do not accurately assess their needs vis-a-vis the MBA and the candidates who do not investigate and evaluate their future within an organization prior to accepting a position.

LIBERAL ARTS RECRUITING

Though the largest group of college graduates completes their baccalaureate in the Liberal Arts, the active recruiting of these generalists has always come in a poor third behind the technical and Business Administration graduate. What are the attitudes, preferences and experiences for or against the Liberal Arts graduate?

* * *

Statement	Response Frequencies Disagree or Strongly Disagree	Neither Agree nor Disagree	Agree or Strongly Agree
Our firm prefers to hire Bachelor's Business majors rather than Liberal Arts majors.	8%	23%	69%
We are hiring more Liberal Arts majors than we did five years ago.	63%	23%	14%
Liberal Arts BAs have better communication skills than do Business Administration BAs.	25%	55%	20%
Liberal Arts BAs should take business related courses if they expect to find a job with my firm.	6%	17%	77%
My firm would rather not hire Liberal Arts BAs who do not have strong business related summer experience.	15%	41%	44%
Business Administration majors' goals are more defined than are those of Liberal Arts majors.	10%	20%	70%
The Liberal Arts majors are more flexible than are Business Administration majors.	20%	49%	31%
A Liberal Arts BA will be disappointed by his or her job prospects.	9%	32%	59%
We are willing to pay more for a Business major than for a Liberal Arts major.	28%	27%	45%
Communication skills are the most valuable skills an inexperienced BA can bring to a job.	16%	29%	55%

What future utilization do you see for Liberal Arts graduates?

It is the economic adage of supply versus demand: an oversupply of college graduates has allowed 69% of all surveyed businesses to prefer a business or technical degree from their new hires, much to the detriment of the Liberal Arts graduates. Fewer than 15% of all respondents are hiring more Liberal Arts graduates today than they did five years ago. Considering the "person" rather than the major is a luxury few businesses can or will do.

> "While I personally feel there are many solid Liberal Arts students deserving of employment consideration, most managers tend to shy away from people without business background. It's a convenient screening tool."

> "I see little change for the BA in heavy industry until there is perceived to be an on going shortage of Business Administration grads in various specialties. With us, even a BA with some business core courses is passed over in favor of a Business Ad with the right major."

Liberal Arts hiring, however, is occurring, depending on the type of industry. If the company is diversified with different functions or offers training programs, it will recruit and hire Liberal Arts graduates usually into positions that emphasize interpersonal or communication skills.

LIBERAL ARTS RECRUITING

> "...In sales there is no correlation between success on the job and having a Liberal Arts or Business Administration degree..."

> "We have had good success with the Liberal Arts BAs in our business. Although we look primarily at the business major, the Liberal Arts people do have excellent communication skills."

Computer programming and accounting jobs are also possibilities for Liberal Arts graduates if company training programs exist.

> "Our firm is unable to utilize large numbers of Liberal Arts grads on the professional staff. We do have a very limited program whereby students graduated from prestigious Liberal Arts colleges are put through an MS in accounting program by the firm."

Other Liberal Arts graduates are entering business through clerical or non-exempt jobs and attempting to advance in-house.

> "They are currently being hired for clerical positions which previously required only a high school diploma, and salaries haven't escalated to compensate for the degree."

> "We do not normally hire Liberal Arts graduates or bachelor's in business into exempt positions. They generally start in a non-exempt position and work their way into an exempt position."

Beyond the initial hire, non-technical graduates need to take training or courses in technical or business areas if they want upward mobility. Educational Assistance Programs offered by many firms advance this principle.

> "Once on board, it's the work performance that counts. The employee may, however, lose out on promotional opportunities that require course work in designated business areas."

What changes in the Liberal Arts generalists' education would enhance their employment? They need to become better aware of the realities of business organizations, their needs and how they can fit. Only 30% of the respondents saw the Liberal Arts graduates as having defined goals. Proper and early career counseling and academic advising can help the student choose courses, in addition to the Liberal Arts, that are more business oriented: math, business, computer, science. Seventy-seven percent (77%) of those surveyed urged the Liberal Arts BAs to take business related courses if they expect to find jobs with their firms. Obtaining work experience is also strongly advised. Forty-four percent (44%) agreed that they would hire Liberal Arts BAs if they had strong business related summer job experience.

The right mix of analytical business and communication skills combined with realistic career goals is essential for the employability of the Liberal Arts graduate. Add to these fundamental skills the abilities in logical thinking, flexibility, motivation, commitment and dealing with people and the Liberal Arts grad has opportunities, but he must convince business and industry.

> "Future utilization depends on the ability of BAs to respond to company needs. Business students 'sell' their technical knowledge. BAs must 'sell' their skills."

CORPORATE RECRUITING OF ACADEMICS

Colleges and universities have not been able to absorb into their teaching ranks the numbers of PhDs graduating for more than a decade. Shortages of doctorates in engineering, business and some of the sciences do exist, but there has been a surplus of graduates in the humanities and most of the social sciences. Voices have been raised intermittently advocating the employment in America's corporations of the "humanists" for they could be the champions of social responsibility and the internal conscience of the organization. Others have argued that the marked superior intellectual abilities of these doctorates and the associated skills they possess make them adaptable to many positions.

Teachers from the primary and secondary levels have been forced to leave education because of a natural drop in school enrollments or a personal dissatisfaction and sought other careers in the private sector.

The corporations participating in this year's survey were asked about the employment of these two groups of academics.

* * *

How many PhDs with humanities background or school teachers do you estimate your firm has hired in the last five years?

Primary and Secondary Teachers		Humanities PhDs	
None	33%	None	64%
1-10	50%	1-10	34%
11-35	12%	11-35	2%
36 +	5%	36 +	0%

Would teachers who have decided to leave education "fit into your firm"?

In assesing the responses and the attitudes expressed, they were mixed. Twenty-four percent (24%) stated that teachers would fit into a job, thirty-four percent (34%) held no opinion, and thirty-nine percent (39%) felt educators would not find a suitable position in their corporate environment. Of the firms which had hired teachers in the last five years, there was a 50/50 split in response to the question.

Firms who have hired teachers and who saw continued employment opportunities for them identified several areas where teachers had made successful transitions from the classroom to the corporate ranks. These areas were: Personnel, including Training and Development, Sales, Management, Public Relations, Computer Programming; in general, Administrative Assistant positions.

Respondent's comments:

> "School teachers have to learn that business is in the business of making money and that calls for a lengthy work day. Given that energy, they're a good match."

> "If a person has only a few years in the teaching profession, there's a reasonable chance for employment consideration. But if the individual has 5+ years experience, he or she is 'branded' as a teacher."

> "We have found that primary and secondary school teachers fit well into people management functions."

CORPORATE RECRUITING OF ACADEMICS

Humanities Doctorates

The survey asked for a reaction to six statements concerning the recruiting and employment of humanities PhDs in business.

	Response Frequencies		
Statement	Disagree or Strongly Disagree	Neither Agree nor Disagree	Agree or Strongly Agree
My firm is likely to hire a PhD who has a degree in a humanities field.	86%	11%	3%
Humanities PhDs are most likely to find a non-academic job in a personnel training area.	19%	45%	36%
Humanities PhDs are too expensive.	14%	70%	16%
Humanities PhDs are likely to suffer job dissatisfaction at my firm.	14%	44%	42%
My firm would be willing to pay more for a humanities PhD than it is for a Liberal Arts BA.	16%	46%	38%
My firm would have higher expectations of a PhD than it would of a BA.	4%	15%	81%

Of those firms which had not hired PhDs during the past five years (64%), 88% said they would be unlikely to hire a PhD who has a degree in a humanities field. Forty-eight percent of these non-hiring firms agreed that a humanities PhD would probably suffer job dissatisfaction at their firm.

Of those firms which had hired PhDs during the past five years (36%), only 8% said they would be likely to hire a PhD who has a degree in a humanities field. Twelve percent were neutral on the matter. Job dissatisfaction was still an issue among these hiring firms, 32% agreeing that a humanities PhD would be likely to suffer job dissatisfaction at their firm, and 24% disagreeing. Forty-eight percent of the hiring firms believed that humanities PhDs are most likely to find a non-academic position in a personnel training area. Also among the hiring firms, 27% felt that PhDs were not too costly, and 12% thought they were. But 45% of the hiring firms were willing to pay more for a humanities PhD than a Liberal Arts BA.

Comments:

> "We have worked with the University of Virginia's PhD summer program for three summers, and hired one person each year. (two of our three are doing real well, one is having a more difficult transition.)
>
> "It is possible universities are taking unfair advantage of frustrated and hungry humanities PhDs by giving them a fast fix course, raising their expectations and dumping them in a marketplace for which they still are not competitive?"
>
> "The key here would seem to be why these kinds of people would be changing careers to pursue work in the private business sector. I think there is an inference made that salary or lack of opportunity turn people with such backgrounds away from their real area of interest. It then becomes such applicant's responsibility to convince private business concerns that they could indeed be satisfied and in turn successful working in an industrial/business environment."

RESUMES AND THE JOB SEARCH

What do employers consider important in evaluating a resume, when should it be sent if a graduate is conducting a mail campaign, how important are grades, and what are the prospects of obtaining a position with an unsolicited resume? Two hundred and ten (210) personnel managers responded to these questions.

* * *

What are the two (2) most important items you consider when evaluating a resume?

Work Experience	30%	Clarity - Neatness	10%
Academic Background	24%	Extracurricular Activities	7%
Grades	13%	Honors	4%
Career Objectives	10%	Geographic Location	2%

How much importance does your company attach to a high grade point when evaluating an inexperienced entry level candidate?

Important - Very Important	68%
Ambivalent	17%
Not Very Important	15%

What is the best time for a graduating student to mail out an unsolicited resume?

Prior to graduation:	
3 to 4 months	27%
5 to 7 months	19%
7 to 8 months	14%
1 to 2 months	7%
Summer	5%
Anytime	26%
Prior to campus recruiting	2%

The use of the resume as a part of the employment process has become increasingly more important in the current employment market, where there is an abundant number of applicants for every position. It is surprising how often the resumes of college graduates are sloppily prepared and unclear as to education, skills, experience or job objective. The quality of most resumes would improve if they focused upon the employer's needs and those items which are a part of the evaluation.

Employers are using resumes to fill professional positions. An estimated 10% of all exempt positions will be filled from unsolicited resumes and another 19% from newspaper ads where the resume is the primary communication. With more companies pre-screening for campus recruiting, if the resume does not catch the eye of the pre-screener, the candidate, however great, will never get the opportunity to interview. It's a critical instrument and requires more attention than many candidates are giving it!

SUMMARY AND TRENDS

The data and information contained in the thirty-eighth annual report were provided by 262 companies. Most of the respondents are national corporations, large and medium sized, which regularly recruit from our colleges and universities. Survey responses were received from the companies during the month of November, 1983.

Corporate performance in 1983 took a decided turn for the better in that 57% reported a better 1983 than 1982, while only 18% said business was worse. The outlook for 1984 is quite good since 71% of the firms expect business to improve, 25% forecast no change, and only 4% anticipated worse conditions. Forty-seven percent (47%) of those who had a better 1983 than '82 predict an even better 1984.

College recruiting on the campuses continued its downward trend in 1983, but will reverse itself in 1984. Sixty-two percent (62%) of the corporations recruited less in 1983. Most visited fewer campuses and conducted fewer interviews, but 29% did not visit any college placement offices. Recruiting for next year's graduates will improve significantly, with 65% of the reporting corporations reporting their needs up for baccalaureates and 35% increasing recruiting for Master's degrees.

The expected trends in college recruiting have returned. Demand for BS engineers will be up 21% and MS engineers, 36%. Non-technical recruiting at the BS and MS level will improve by 20% and 24% respectively. Overall demand in 1984 will see a 20% improvement for baccalaureates and 28% for the Master's. Specific fields where demand will be up include Accounting - 28%, Sales and Marketing - 10%, Business Administration - 28% and Computer Science - 28%. The MS in Accounting up 43%, the MBA, non-tech BA, up 19% and with the technical BS, up 16%. Overall, a good change for the graduate, but still a very competitive market for the generalist where the demand will be flat to lower.

It became evident to the placement directors during the last few years that the corporations were responding very quickly to current condition, and were less committed to long-range manpower plans. Only 40% stated that they were hiring against a long-range plan, though 50% of the group hiring for current needs had a long-range plan that was considered. The companies who eliminated or severely cut back on recruiting the last two years, recognized that in three to five years promotable personnel would not be available internally. The solution; hire experienced personnel throughs ads, agencies or other sources. College recruiting will be changing even though recruiters see the need for graduates increasing in the next three to four years.

ACKNOWLEDGEMENT

The publication of the Report would not be possible without the cooperation and support of the many personnel executives who generously invest numerous hours in the accummulation of the requested information. They have the appreciation of Northwestern University. We trust that the published findings will be of value to them and that they are aware of the thousands of college students, placement officers, career counselors and others who use this material and find it useful.

This year's Report addresses more issues than typically considered in the past. We had everyone of the professional staff involved in the preparation, Frances Brown, Suzanne Gregory, Charles Michet, Nancy Sims and Margaret Smith. The other staff members, Merry Ann Pratt, Meg Priestley, Marisa Wojcik and my assistant, Charlotte Siegel, contributed their unique talents. Special recognition given to Charles Michet, for he went into combat with his quantitative and programming skills and took on a pugnacious computer that only followed instructions and not mental wishes and wants. Accolades and a chaplet to each and all! Thank you!

Northwestern University

Victor R. Lindquist
December, 1983

THE PLACEMENT CENTER

The Placement Center of Northwestern University is able to assist employers in their search for qualified professional personnel in virtually every field and at all levels from entry to executive. Inquiries concerning the services of the Center may be directed to Victor R. Lindquist, Director of Placement, Northwestern University, Evanston, Illinois 60201.

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Whatsoever things are true, whatsoever things are honest,
whatsoever things are just, whatsoever things are pure,
whatsoever things are lovely, whatsoever things are of
good report;
if there be any virtue, and if there be any praise,
think on these things.

Philippians 4:8

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Center for Human Resource Research

The Ohio State University

Demographics of Alcohol Use among Respondents of the 1982 National Longitudinal Survey of Labor Market Experience of Youth Panel

by

Joan E. Crowley

January 1983

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This report was prepared under a contract with the Employment and Training Administration, U.S. Department of Labor, under the authority of the Comprehensive Employment and Training Act and was funded by the National Institute on Alcohol Abuse and Alcoholism via an intergovermental transfer through the Department of Labor. Interpretations or viewpoints in this report do not necessarily represent the official position or policy of the Department of Labor or of the National Institute on Alcohol Abuse and Alcoholism.

Demographics of Alcohol Use among Respondents of the 1982 National Longitudinal Survey of Labor Market Experience of Youth Panel

By Joan E. Crowley

This report provides simple cross-tabular results from the administration of a short series of alcohol use questions on the 1982 National Longitudinal Survey of Labor Market Experience of Youth. The primary focus is on the variations in reported alcohol consumption by race, sex, and age.

SAMPLE DESCRIPTION

The National Longitudinal Survey of Labor Market Experience of Youth is a panel study initiated in 1979 by the United States Department of Labor to investigate the processes by which youth enter into the labor market. Design and analysis are the responsibility of the Center for Human Resource Research of the Ohio State University. Field work is done by the National Opinion Research Center. The initial design called for a cross-sectional sample of youth aged 14 to 21 in 1979, with supplemental samples of blacks, Hispanics, and economically disadvantaged non-black, non-Hispanic youth. Supplemental funds from the United States Department of Defense and from the Armed Services provided funds for the inclusion of approximately 1,200 young people who were enlisted in the armed forces. The total sample as of the initial interview was 12,686. The sample has been reinterviewed each year since 1979, with a retention rate of over 95.5 percent as of 1982.

In order to estimate population figures from this sample, weights were developed based primarily on the sample design (that is, since blacks were oversampled, they have lower weights in the population estimates), plus adjustments for other sources of sample variation. Weights are recalculated for each survey year to adjust for sample attrition. Thus, the unweighted panel of approximately 12,000 respondents produces weighted estimates of the frequency of alcohol use for the 32,000,000 youth in the sample's age group in the United States population. The tables present both weighted and unweighted sample sizes.

Respondents are interviewed annually, with the interview period lasting from January to approximately the end of May of each year. The alcohol use questions were initially included in the interview for 1982, when the respondents were 17 to 25 years of age. The specific questions used are included as the Appendix to this report.

Since not all questions are appropriate for all respondents, the interviews involved skip patterns which routed the interviewers to the relevant questions for each particular respondent. The tables in this report provide descriptions for the specific groups, or universes, for which the percentages were calculated.

RESULTS

Patterns of Alcohol Use by Race and Sex. Initial inspection of frequencies show that females consistently report lower levels of alcohol use than do males, so all tables will be presented separately by sex.[1] Table 1 shows the responses to the alcohol use questions by sex and race. While most of the respondents have at least tried alcohol, drinking is reported by a higher percentgage of whites than of other races. Hispanics are intermediate, while blacks have the lowest levels of having had at least one drink.

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[1] The usefulness of this decision was repeatedly demonstrated, as most of the variation in drinking behavior occurs among the young men, and their drinking patterns would have been masked by inclusion of both sexes in the percentages.

Respondents who had never had a drink were skipped over the remainder of the alcohol use questions, since details of drinking patterns were irrelevant for lifelong teetotalers. The remainder of the tables exclude those who have never had a drink.[2]

In fact, it appears from the tables that not only are minorities less likely to take the first drink, they also tend to start drinking at a later age. Since at least part of the sample is still under the legal drinking age, section 3 of Table 1 is restricted to those respondents over the age of 21. Whites are more likely than blacks or Hispanics to have started drinking before the age of 18, especially among the males.

Among non-abstainers, three-fourths have had a drink in the last month, with the proportions substantially higher among males and whites than among females and minorities, with percentages ranging from 53% for black females to

---

[2] There are both problems and advantages to such an approach. Given the pervasiveness of alcohol use in the United States, it can be assumed that those who have never drunk alcohol probably have strong cultural or family prohibitions. Restricting the description to those who have tried alcohol means the tables are interpretable as describing variations in drinking patterns among those who have at some time been drinkers. Including the teetotalers has the advantage of making the tables descriptive of the entire population, but the patterns within the drinking group are distorted by the variation in the proportion of persons who abstain entirely. Excluding abstainers means the focus of the analysis is on patterns of drinking behavior, rather than on the amount of alcohol consumed.

An example might clarify the issue. On the question of the age at which the respondent started drinking, including abstainers would lower the percentages in all categories other than "never," but the reduction is greatest among blacks, least among whites. The question of whether blacks who drink at all start drinking earlier or later than white drinkers cannot be easily answered by a table including the abstainers. Therefore, the tables presented show patterns of drinking conditional on an initial use of alcohol. Further, for questions about the level of drinking in the recent past, the tables represent the patterns which hold among those who have had one or more drinks in the relevant period.

82% for white males. The intensity of drinking is as important as the incidence of drinking. The NLS interview asked the number of times the respondent had had six or more drinks on one occasion in the last month. Among those who had had at least one drink in the month, two fifths had not had a major drinking spell. Again, women and minorities reported lower frequencies. Among the white and Hispanic males, almost three quarters had had one major drinking spell, with over a third reporting three or more incidents. While almost as many females as males had one or two major drinking spells, less than half as many females as males reported three or more spells.

The variation by race and sex in the frequency of heavy drinking is most dramatically shown in Figures 1 and 2. For all females, even among those who have had a drink within the last month, the majority have never had as many as six drinks in one day during that period, and very few have had three or more incidents of heavy drinking. Among the women, blacks report the fewest such incidents, but the shape of the distribution is roughly the same for all races. Among males, on the other hand, there is a pronounced difference in drinking patterns by race. Black males show the female pattern, with the modal response being no heavy drinking episodes, and a sharp fall-off in the frequency of heavy drinking episodes. For whites and Hispanics, however, the modal response is one or two episodes, and a substantial minority report three or more.

Men are also more likely than women to drink in bars. About equal proportions of men and women who have had a drink in the last month report never having been to a bar during that time, but among those who go to bars at all men are likely to go more frequently. Minorities report lower levels of drinking in bars than do whites.

Among those who had a drink within the 30 days preceding the interview, four fifths had had a drink in the past week. Panels 7 through 12 of Table 1 show details of the drinking levels reported for the one week period. About half of the drinking sample had had a drink on one or two days of the past week, while about two percent of the females and five percent of the males had had at least one drink on each of the seven days. There was relatively little variation by race in the number of days of the week on which liquor was consumed.

There were marked differences by sex in the types of alcohol used. Beer was reported by nine out of ten of the men who had had a drink during the week, as compared to less than half of the women. In fact, the average number of beers reported by the men ranges from 6.4 for blacks to 10.5 for the whites, about three times the mean number of beers reported by women. Hispanic females were least likely to drink beer. A substantial minority of young men who drink beer drink it in large quantities--among whites, nine percent of the beer drinkers report consuming more than four six-packs during the course of the week.

While women generally drink less than men, they are more likely than men to report drinking wine. Over one third of the women who had drunk alcohol during the preceding week had had at least one glass of wine, compared to less than one fifth of the young men. Black men are more likely to drink wine than are whites, one of the few reversals of the usual pattern by race. While women are more likely to drink wine than are men, among wine drinkers men report higher levels of consumption.

The pattern for hard liquor is somewhat similar to that for wine--women are more likely to report having at least one drink of hard liquor, but among hard liquor drinkers it is men who report the higher consumption levels. For both sexes, whites report the highest level of hard liquor consumption, blacks least, and Hispanics are intermediate.

The final two questions on the alcohol use instrument asked whether the respondent's drinking had ever caused problems at school or at work. The questions were asked of all respondents who had reported ever having had a drink. Few respondents report such problems. Considering the substantial differences in drinking patterns, there is little difference in frequency of problems by race or sex, probably due to the low overall level of reported problem drinking.

Patterns of Alcohol Use by Age and Sex. Table 2 shows the responses to the alcohol use questions broken down by sex and by age categories. Note that for youth in the youngest category, those 17 to 19 years old, there are often legal restrictions on alcohol use, and that in some areas the legal restrictions also affect the second category, those 20 to 21. Given these considerations, there is surprisingly little variation by age. As with the breakdowns by race, there is less variation among the females than among the males, probably due to the generally lower level of consumption of alcohol by young women.

There is some evidence of the deterrent effect of the law in the proportion of youth in the lowest age category reporting never having had a drink, 12 percent for young women and 8 percent for young men. In general, questions about experiences which cover the entire life span (e. g., did you ever drink alcohol) are logically expected to show increasing frequency of "yes" answers with time, since older respondents have simply had more opportunity to drink than have younger respondents. The lack of increase in frequency of ever having consumed alcohol among the oldest groups could be a cohort effect, or there could be some erroneous reporting in the oldest category due to faulty memory or suppression of early drinking by current abstainers. Alternately, it could be that virtually all young people who are going to try alcohol have done so by the time they reach age 23, so that there is no noticeable increase in the proportion having consumed alcohol past that age.

Variation by age is more pronounced in reporting alcohol consumption in the previous month, with the youngest age group reporting substantially lower use than do their elders. It is interesting to note that there actually appears to be a drop in incidence between the upper two age categories among the young women, with 74 percent of the 22-23 year olds reporting a drink in the last month compared with only 70 percent of the 24-25 year olds. For the males, there is a leveling off at these ages, rather than a decline.

The reports of heavy drinking sessions, six or more drinks at a sitting, indicate a pattern which shows up in many of the remaining items, at least among the young men. The highest levels of drinking are reported among the intermediate age groups--those 20 to 23 years old. The youngest men, those under 20, are presumably subject to legal and perhaps familial pressures toward moderation or abstention. Frequency of heavy drinking seems to increase fairly steadily from age 17 to age 23, then drops off. The respondents in the oldest age category actually are less likely to report three or more spells of heavy drinking than are those in the youngest category. A similar pattern holds for the young women, but the differences across groups are smaller, and young women are less likely to report frequent heavy drinking.

Figure 2 illustrates the pattern graphically. The young women are represented by a single line, since the variation by age was so small that separate lines simply could not be distinguished on any feasible scale. The separation by age is clearest at the upper end of drinking frequency. The youngest males are most likely to report one single heavy drinking episode, but the proportion of frequent heavy drinkers is clearly highest among men in the two intermediate age categories.

Drinking in bars most clearly shows the effects of legal constraints, with a pronounced increase in prevalence across the first three age groups. As with heavy drinking, there is a dropping off of drinking activity among the oldest group. However, it appears that, among the youth who go to bars at all, there is little variation in the frequency of visits by age among those youth with no legal constraints.

Among those who drank during the previous month, there is a monotonic increase in the number of days in the previous week on which alcohol was consumed, in contrast with the curvilinear patterns shown for the intensity of drinking. Curvilinearity does, however, show up in the consumption of beer and of hard liquor. The highest number of drinks is reported by the two middle age groups. Wine is the exception, with both the incidence and frequency increasing monotonically by age for males. The pattern for wine drinking is somewhat more erratic for females, although a monotonic increase shows up among those young women who had at least one glass of wine during the week. Apparently wine is a taste which is acquired with age.

Interpretation of age patterns in reporting problems caused by drinking present the usual problems due to the confounding of age with time at risk. In fact, there is little increase with age in the percent of respondents reporting problems at school. Among the young women, the oldest group is least likely to report school problems. While this pattern might be a cohort effect, it is more likely to be due to memory fade associated with the longer time that this group has spent out of school on average, compared with their younger counterparts. The young men show a slight increase in reports of problems at work associated with increasing age, but the overall level of reported problems is so low that it is hard to assess the importance of the trend. Among other factors, the younger groups include larger proportions of full time students, and correspondingly fewer full time workers, so their lower level of problems at work may be due simply to fewer jobs involved.

DISCUSSION AND SUMMARY

Several clear patterns emerge even from the simple cross-tabular analysis presented here. Young men are more likely to drink than are young women, and young men are much more likely to drink heavily. White males consume the most alcohol virtually any way it is measured. Hispanics report a pattern of drinking similar to that of whites, although at a slighly lower level. Black males, on the other hand, tend to report lower levels of drinking, both in terms of number of drinking occasions and in quantity of liquor consumed. While black males drink substantially more than do any of the ethnic categories among females, their pattern of responses is more similar to the female pattern than to the pattern for white or Hispanic males. That is, black males tend not to report drinking great quantities of alcohol at one session, and are less likely than other men to frequent bars.

The common image of beer for men and wine for women is supported in the reports. Women who drink are somewhat more likely to report consuming hard liquor than do men, although men report drinking liquor in greater quantity.

The patterns of alcohol use by age were somewhat unexpected. Most of the respondents report having at least tried alcohol, even those whose drinking is still legally restricted. Among those who drink at all, legal barriers may affect the location of alcohol use more than the amount, shifting drinkers out of public bars to various private sites. While there is a fairly steep increase in the frequency and amount of drinking between the very youngest respondents and those in the next older category, there is less of an increase over the remainder of the age range than might be expected. In fact, among young men, there appears to be a curvilinear pattern. It is tempting to interpret the age results in terms of transition to adulthood. Heavy or binge drinking seems most common among those who have recently become emancipated. It is notable that while the number of days in the week on which alcohol is used increases steadily with age, the amount of drinking seems to decline among those in the oldest category. With age and experience drinking seems to become less an event and more a steady part of a lifestyle.

FEMALES

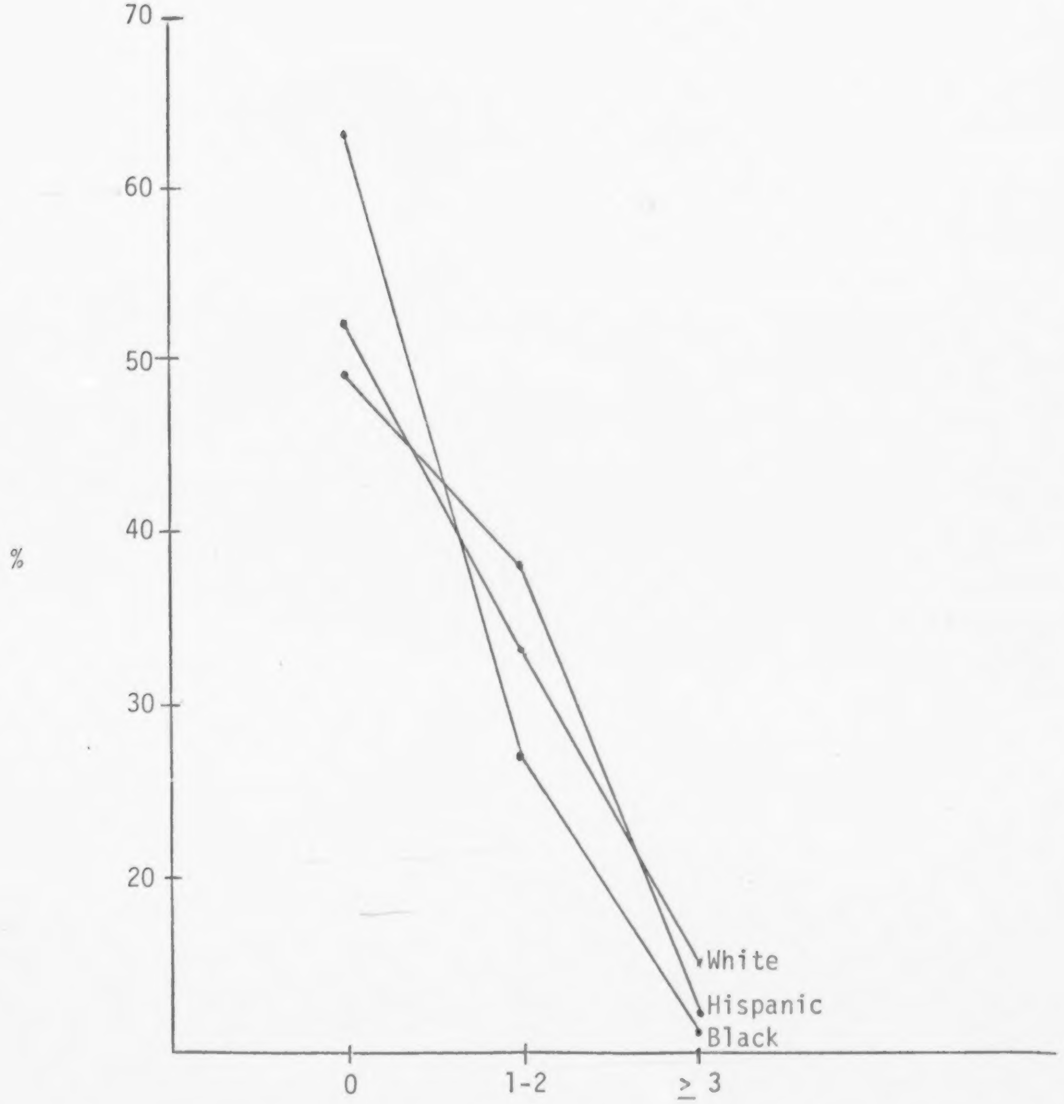

Figure 1A Number of Times Had 6 or More Drinks on One Occasion in Last Month, by Race

Universe: Respondents who drank during 30 days preceding interview date. (Weighted N = 10,659,000; unweighted N = 3,491)

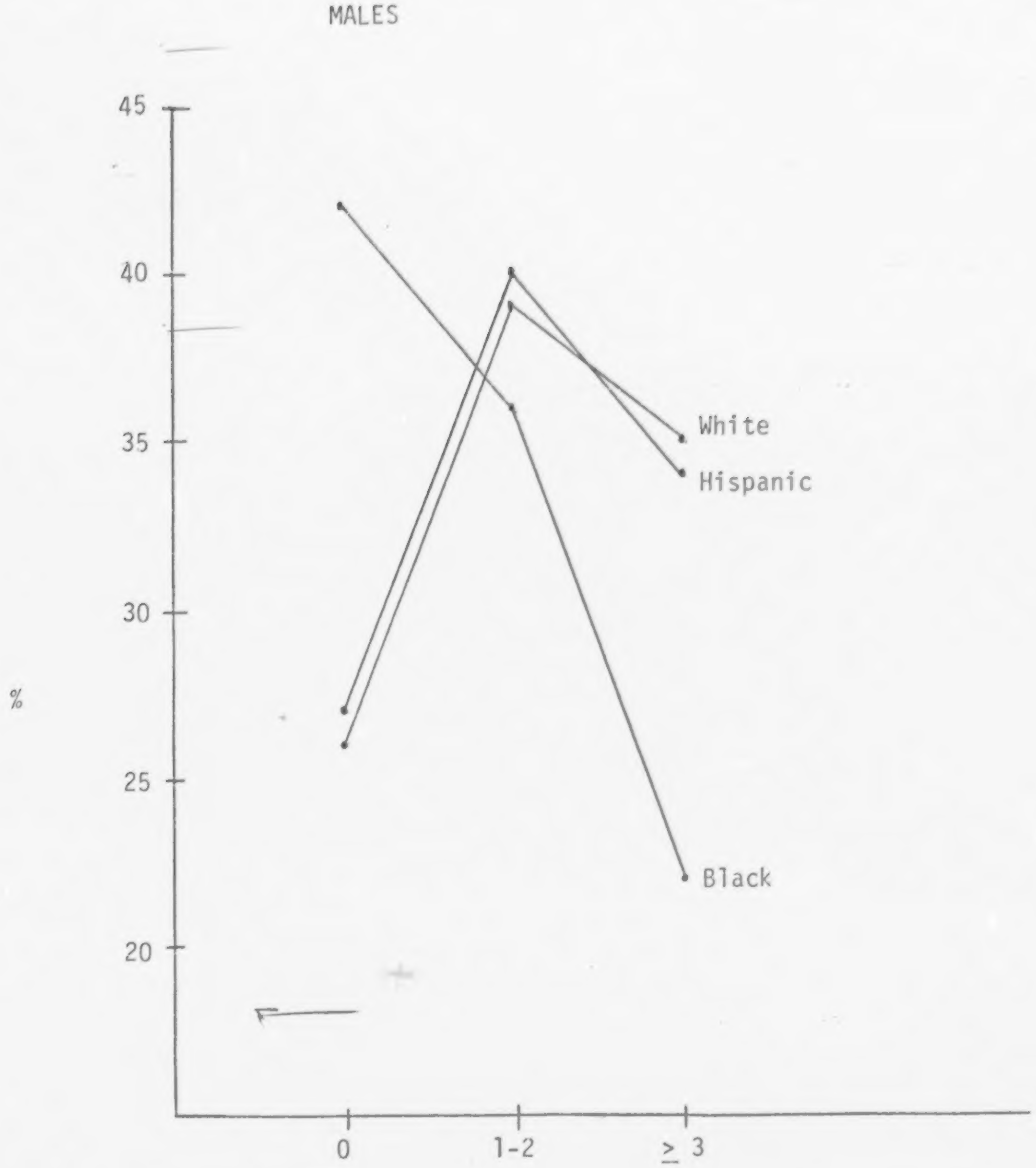

Figure 1B Number of Times Had 6 or More Drinks on One Occasion in Last Month, by Race

Universe: Respondents who drank during 30 days preceding interview date. (Weighted N = 12,941,000; unweighted N = 4,394)

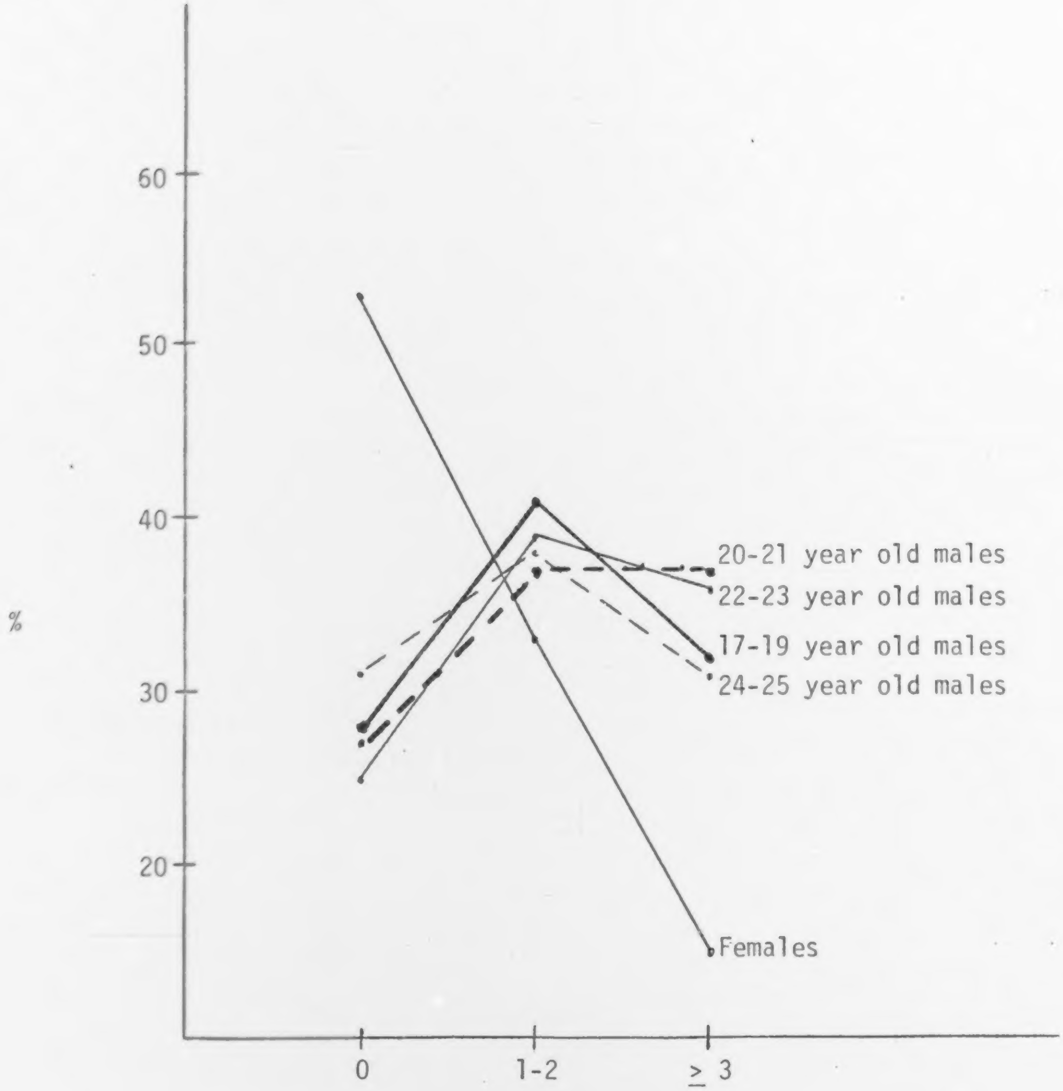

Figure 2 Number of Times Had 6 or More Drinks on One Occasion in Last Month, by Age and Sex

Universe: Respondents who drank during 30 days preceding interview date. (Weighted N = 23,600,000; unweighted N = 7,885)

Table 1 Patterns of Alcohol Use by Race and Sex

(Percentage distributions and means)

	Female			Male			Total
	Black	Hispanic	White	Black	Hispanic	White	
1. Ever had a drink[a]							
Yes	82	83	96	88	92	97	94
No	19	17	5	13	8	3	6
Total	100	100	100	100	100	100	100
2. Age started drinking[b]							
2-10	1	2	1	2	2	2	2
11-15	10	19	19	22	27	28	23
16-17	39	33	41	41	43	41	41
18 and over	50	47	39	35	28	29	35
Total	100	100	100	100	100	100	100
Mean	17.41	17.08	16.77	16.54	16.23	16.19	16.53
3. Age started drinking[c]							
2-10	1	1	0	2	2	1	1
11-15	8	14	13	19	21	24	18
16-17	30	26	32	32	35	36	34
18 and over	61	60	55	47	42	39	48
Total	100	100	100	100	100	100	100
Mean	17.95	17.94	17.46	17.10	16.68	16.55	17.06
4. Had a drink in the last month[d]							
Yes	53	56	73	70	75	82	75
No	47	45	27	30	25	18	25
Total	100	100	100	100	100	100	100
5. Number of times had 6 or more drinks on one occasion in last month[e]							
0	63	49	52	42	27	26	39
1-2	27	38	33	36	40	39	36
3 or more	11	12	15	22	34	35	25
Total	100	100	100	100	100	100	100
6. Number of times went to bars in last month[e]							
0	49	45	31	44	48	30	33
1	21	24	23	18	18	15	19
2-3	18	20	25	19	18	24	24
Once-twice a week	9	10	16	13	13	23	18
Several times a week	1	1	4	4	3	7	5
Almost every day	1	0	1	2	1	2	1
Total	100	100	100	100	100	100	100

Table 1 (continued)

	Female			Male			Total
	Black	Hispanic	White	Black	Hispanic	White	
7. Number of days you drank in last week[e]							
0	29	34	27	18	17	15	21
1	41	44	39	30	35	29	34
2	17	15	17	25	24	22	20
3	6	4	9	11	11	14	11
4	3	2	4	7	5	8	6
5	2	1	2	2	3	4	3
6	0	0	1	2	2	2	1
7	2	1	2	6	5	5	4
Total	100	100	100	100	100	100	100
Mean	1.28	1.07	1.41	2.02	1.91	2.19	1.81
8. Number of cans or bottles of beer drank in last week[f]							
0	41	50	44	12	10	10	24
1	18	13	10	10	7	7	9
2-6	34	30	31	51	41	33	34
7-12	5	5	9	16	20	24	17
13-18	1	1	3	4	6	8	5
19-24	1	1	3	5	9	9	6
25 or more	0	1	1	3	7	8	5
Total	100	100	100	100	100	100	100
Mean	2.13	2.07	3.54	6.42	9.58	10.54	7.28
9. Number of cans or bottles of beer drank in last week[g]							
1	31	26	18	11	8	8	12
2-6	58	60	55	57	46	37	45
1-12	9	9	16	18	23	27	22
13-18	1	1	5	4	7	9	7
19-24	1	2	5	6	10	10	8
25 or more	0	1	2	4	7	9	6
Total	100	100	100	100	100	100	100
Mean	3.64	4.14	6.30	7.26	10.70	11.76	9.62
10. Number of glasses of wine drank in last week[f]							
0	65	64	63	77	88	82	74
1	12	14	12	8	4	5	8
2	12	8	9	6	3	5	7
3-5	8	9	12	5	3	5	8
6-10	2	4	4	3	2	2	3
11 or more	1	1	1	1	1	1	1
Total	100	100	100	100	100	100	100
Mean	0.89	1.05	1.16	0.83	0.46	0.65	0.85

Table 1 (continued)

	Female			Male			Total
	Black	Hispanic	White	Black	Hispanic	White	
11. Number of glasses of wine drank in last week[h]							
1	36	39	32	34	32	27	31
2	34	24	23	26	23	29	26
3-5	24	25	33	23	24	28	30
6-10	6	11	10	14	17	12	11
11 or more	2	1	2	4	4	4	3
Total	100	100	100	100	100	100	100
Mean	2.58	2.92	3.12	3.63	3.88	3.61	3.30
12. Number of drinks of hard liquor in last week[f]							
0	51	44	48	59	60	55	52
1	23	17	13	13	8	9	11
2	10	10	11	9	9	9	10
3-5	13	20	16	11	12	13	14
6-10	3	6	8	5	6	8	8
11-15	1	1	2	1	2	4	3
16 or more	1	1	2	2	3	3	2
Total	100	100	100	100	100	100	100
Mean	1.30	1.86	2.38	1.69	2.41	2.93	2.56
13. Number of drinks of hard liquor in last week[i]							
1	46	31	25	32	20	19	23
2	20	18	22	23	24	20	21
3-5	26	37	30	28	29	29	29
6-10	6	11	16	11	16	19	16
11-15	2	2	4	3	5	8	6
16 or more	1	2	4	5	7	7	5
Total	100	100	100	100	100	100	100
Mean	2.64	3.34	4.54	4.11	6.07	6.46	5.35
14. Drinking ever caused problems at school[d]							
Yes	0	2	2	3	4	4	3
No	100	98	98	97	96	96	97
Total	100	100	100	100	100	100	100
15. Drinking ever caused problems at work[d]							
Yes	0	1	2	2	3	3	2
No	100	99	98	98	97	97	98
Total	100	100	100	100	100	100	100

---

[a] Universe: All respondents. (Weighted N = 33,550,000; unweighted N = 12,123)

[b] Universe: Respondents who have used alcohol on a regular basis. (Weighted N = 27,960,000; unweighted N = 9,856)

[c] Universe: Respondents age 23-25 who have used alcohol on a regular basis. (Weighted N = 8,270,000; unweighted N = 3,014)

[d] Universe: Respondents who have ever drank an alcoholic beverage. (Weighted N = 31,530,000; unweighted N = 11,130)

[e] Universe: Respondents who drank during 30 days preceding interview date. (Weighted N = 23,640,000; unweighted N = 7,885)

[f] Universe: Respondents who drank during 7 days preceding interview date. (Weighted N = 18,650,000; unweighted N = 6,146)

[g] Universe: Respondents who drank beer during 7 days preceding interview date. (Weighted N = 14,120,000; unweighted N = 4,706)

[h] Universe: Respondents who drank wine during 7 days preceding interview date. (Weighted N = 4,810,000; unweighted N = 1,523)

[i] Universe: Respondents who drank hard liquor during 7 days preceding interview date. (Weighted N = 8,915,000; unweighted N = 2,919)

Table 2 Patterns of Alcohol Use by Age and Sex

(Percentage distributions and means)

	Female				Male			
	17-19 years old	20-21 years old	22-23 years old	24-25 years old	17-19 years old	20-21 years old	22-23 years old	24-25 years old
1. Ever had a drink[a]								
Yes	88	93	95	94	92	94	96	98
No	12	7	5	6	8	6	4	3
Total	100	100	100	100	100	100	100	100
2. Had a drink in the last month[d]								
Yes	62	71	74	70	69	80	84	85
No	38	29	27	30	31	20	17	15
Total	100	100	100	100	100	100	100	100
3. Number of times had 6 or more drinks on one occasion in last month[e]								
0	53	51	52	56	28	27	25	31
1-2	32	35	32	32	41	37	39	38
3 or more	15	15	16	12	32	37	36	31
Total	100	100	100	100	100	100	100	100
4. Number of times went to bars in last month[e]								
0	56	32	23	30	58	33	22	26
1	17	23	27	23	11	13	20	17
2-3	15	24	28	27	17	23	25	27
Once-twice a week	8	17	18	16	10	23	25	23
Several times a week	2	4	3	3	4	7	7	6
Almost every day	1	1	1	1	1	2	2	1
Total	100	100	100	100	100	100	100	100
5. Number of days you drank in last week[e]								
0	37	31	24	22	26	15	12	13
1	37	36	41	42	32	31	28	28
2	16	16	18	19	21	23	24	21
3	4	10	9	9	10	15	15	14
4	3	5	4	4	5	8	8	9
5	2	2	2	2	3	3	3	6
6	0	1	1	0	1	2	3	3
7	2	1	1	2	2	5	7	6
Total	100	100	100	100	100	100	100	100
Mean	1.16	1.36	1.44	1.48	1.59	2.10	2.34	2.37

Table 2 (continued)

	Female				Male			
	17-19 years old	20-21 years old	22-23 years old	24-25 years old	17-19 years old	20-21 years old	22-23 years old	24-25 years old
6. Number of cans or bottles of beer drank in last week[f]								
0	40	40	45	48	9	9	12	10
1	12	10	9	12	10	7	6	9
2-6	33	30	32	30	32	37	37	35
7-12	8	12	10	6	25	24	22	22
13-18	4	3	2	1	7	7	9	8
19-24	3	3	1	3	10	8	7	9
25 or more	1	2	1	1	7	8	7	7
Total	100	100	100	100	100	100	100	100
Mean	3.53	4.05	3.17	2.87	9.78	10.35	9.96	10.03
7. Number of cans or bottles of beer drank in last week[g]								
1	19	16	17	24	11	8	6	10
2-6	55	51	58	57	35	41	43	39
7-12	13	19	18	11	28	26	25	24
13-18	7	5	4	2	8	7	10	9
19-24	5	6	2	5	11	9	8	10
25 or more	1	3	2	2	7	9	8	8
Total	100	100	100	100	100	100	100	100
Mean	5.87	6.79	5.76	5.49	10.80	11.42	11.37	11.18
8. Number of glasses of wine drank in last week[f]								
0	62	69	60	62	88	83	81	78
1	15	8	14	11	4	5	6	5
2	8	9	8	10	3	5	5	6
3-5	11	10	13	13	4	4	5	6
6-10	3	4	5	3	1	2	2	3
11 or more	1	0	1	1	0	1	1	1
Total	100	100	100	100	100	100	100	100
Mean	1.06	0.93	1.25	1.21	0.35	0.58	0.62	0.90
9. Number of glasses of wine drank in last week[h]								
1	41	26	34	30	34	27	33	25
2	21	29	20	26	24	32	26	29
3-5	29	31	33	34	30	26	28	25
6-10	7	13	11	8	11	12	10	16
11 or more	2	1	1	3	0	4	3	5
Total	100	100	100	100	100	100	100	100
Mean	2.80	3.03	3.12	3.18	2.98	3.47	3.31	4.13

Table 2 (continued)

	Female				Male			
	17-19 years old	20-21 years old	22-23 years old	24-25 years old	17-19 years old	20-21 years old	22-23 years old	24-25 years old
10. Number of drinks of hard liquor in last week[f]								
0	56	47	44	48	64	56	50	55
1	15	13	14	14	8	8	10	10
2	9	13	11	11	8	9	9	10
3-5	13	17	17	15	12	13	13	13
6-10	5	7	10	8	5	8	10	8
11-15	1	2	3	1	3	4	3	3
16 or more	2	2	2	2	1	3	5	2
Total	100	100	100	100	100	100	100	100
Mean	1.64	2.19	2.54	2.35	1.71	2.97	3.66	2.37
11. Number of drinks of hard liquor in last week[i]								
1	35	24	25	27	23	18	20	21
2	21	24	20	22	21	21	18	21
3-5	28	32	30	30	32	29	27	29
6-10	11	13	17	16	14	17	20	17
11-15	2	4	5	2	7	9	6	7
16 or more	4	3	3	4	4	6	10	4
Total	100	100	100	100	100	100	100	100
Mean	3.72	4.09	4.58	4.51	4.70	6.80	7.39	5.26
12. Drinking ever caused problems at school[d]								
Yes	2	3	3	1	3	3	5	5
No	99	98	97	99	98	97	95	95
Total	100	100	100	100	100	100	100	100
13. Drinking ever caused problems at work[d]								
Yes	1	1	3	2	2	2	3	4
No	99	99	979	98	98	98	97	96
Total	100	100	100	100	100	100	100	100

See Table 1 for universes.

APPENDIX

SECTION 13: ALCOHOL USE

1. Next I'd like to ask you some questions about drinking alcoholic beverages, including beer, wine, and liquor. Have you ever had a drink of an alcoholic beverage?

Yes 1 70/

No ... (SKIP TO SECTION 14) 0

2. How old were you when you first started drinking? PROBE: For example, having two or more drinks a week?

ENTER AGE |__|__| 71-72/

IF VOLUNTEERED: Never have 00

3. Have you had any alcoholic beverages, including beer, wine, or liquor, during the last 30 days?

Yes 1 73/

No .... (SKIP TO Q. 10) 0

4. How often have you had 6 or more drinks on one occasion during the last 30 days? Would you say it was .. (READ CATEGORIES) ..?

10 or more times 6 74/

8 or 9 times 5

6 or 7 times 4

4 or 5 times 3

2 or 3 times 2

Once 1

Never 0

5. How often in the last 30 days did you go to bars, taverns, or cocktail lounges? Did you go .... (READ CATEGORIES) ..?

Almost every day 5 75/

Several times a week 4

Once or twice a week 3

2-3 times during the month 2

Once this month 1

Never 0

HAND
CARD
Y

BEGIN DECK 43

Next, I'd like some information about drinking alcoholic beverages, including beer, wine, and liquor, during the past week.

6. During the last seven days, on how many days did you drink alcoholic beverages?

1 day	01	10-11/
2 days	02	
3 days	03	
4 days	04	
5 days	05	
6 days	06	
7 days	07	
None ....(SKIP TO Q. 10)	00	

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7. During the last seven days, how many cans or bottles of beer did you have?

ENTER NUMBER OF CANS OR BOTTLES |__|__| 12-13/

None 00

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8. During the last seven days, how many glasses of wine did you have?

ENTER NUMBER OF GLASSES |__|__| 14-15/

None 00

---

9. During the last seven days, how many drinks did you have containing liquor, such as whiskey, vodka, gin, brandy, etc.?

ENTER NUMBER OR DRINKS |__|__| 16-17/

None 00

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10. A. Has drinking ever interfered or caused a problem with your school work?

Yes	1	18/
No	0	

B. Has drinking ever interfered or caused a problem with your work on a job?

Yes	1	19/
No	0	

---

11. INTERVIEWER: WAS ANYONE ELSE PRESENT BESIDES YOU AND THE R WHEN YOU ASKED THE QUESTIONS IN SECTION 13?

YES	1	20/
NO	0	

The Center has also been active in manpower planning both in the U.S. and in the developing countries. A project for the Ohio Advisory Council for Vocational Education identified the highly fragmented institutions and agencies which supply vocational and technical training in Ohio. Subsequent projects for the Ohio Occupational Information Coordinating Committee have followed graduates of these programs. These data and information on occupational distributions of employers collected for the Occupational Employment Statistics Program are being integrated into a comprehensive planning model which will be accessible to trainees and employers and linked to a national network.

Another focus of the Center's research is industrial relations and collective bargaining. In a project for the U.S. Department of Labor, staff members are working with unions and management in a variety of industries to evaluate several current experiments for expedited grievance procedures. The procedural adequacies, safeguards for due process, and cost and timing of the new procedure are being weighed against traditional arbitration techniques.

Senior staff also serve as consultants to many boards and commissions at the national and state level. Recently the Center's staff have produced papers and prepared testimony for the Department of Labor, the Vice President's Task Force on Youth Unemployment, the Joint Economic Committee of Congress, the National Commission for Employment and Unemployment Statistics, the National Commission for Employment Policy, the White House Conference on the Family, the Ohio Department of Corrections, the Ohio Board of Regents, the Ohio Governor's Task Force on Health, and the Ohio Governor's Task Force on Welfare.

The Center maintains a working library of approximately 10,000 titles, including a wide range of reference works and current periodicals, as well as an extensive microfilm and microfiche collection. Through their facilities linked to the University computer, the Center's data processing staff provide statistical, technical, and programming support both for in-house researchers and the over 250 users of the National Longitudinal Surveys data tapes. They maintain the NLS tapes, data base, documentation, and associated software.

For information on specific Center activities, write: Director, Center for Human Resource Research, 5701 North High Street, Worthington, Ohio 43085.

OSU

The Ohio State University

The Center for Human Resource Research
5701 North High Street
Worthington, Ohio 43085

Center for Human Resource Research

The Center for Human Resource Research is a policy-oriented multidisciplinary research organization affiliated with The Ohio State University. Established in 1965, the Center is concerned with a wide range of contemporary problems related to developing and conserving human resources. Its more than thirty senior staff members come from disciplines including economics, education, English, health sciences, industrial relations, management science, psychology, public administration, social work, and sociology. This multidisciplinary team is supported by approximately 70 graduate research associates, full-time research assistants, computer programmers, and other personnel.

The Center has become preeminent in the fields of labor market research and manpower planning. With continuing support from the United States Department of Labor, the Center has been responsible since 1965 for the National Longitudinal Surveys of Labor Market Experience. Staff have assisted in population and human resource planning throughout the world, having conducted major studies in Bolivia, Ecuador, Kenya, Sierra Leone, Venezuela, and Zaire. At the request of the National Science Foundation, a review of the state of the art in human resource planning was conducted. Other studies have assessed the impact of labor and education policy on labor supply and evaluated employment statistics collection methods. Senior personnel are also engaged in several other areas of research—collective bargaining and labor relations, evaluation and monitoring of the operation of government employment and training programs, and the projection of health education and facility needs.

The Center for Human Resource Research has received over two million dollars annually from government agencies and private foundations to support its research in recent years. Providing support have been the U.S. Departments of Labor, State, Defense, Education, Health and Human Services; Ohio's Health and Education Departments and Bureau of Employment Services; the Ohio cities of Columbus and Springfield; the Ohio AFL-CIO; the George Gund Foundation; the Rockefeller Foundation; and the Ford Foundation. The breadth of the Center's research interests is best illustrated by a brief review of a few of its current projects.

The Center's largest project is the National Longitudinal Surveys of Labor Market Experience. This project has involved repeated interviews over a fifteen-year period with four groups of the United States population: older men, middle-aged women, and young men and women. The data are collected for 20,000 individuals by the U.S. Bureau of the Census, and the center is responsible for data analysis. Since 1979, the NLS has followed an additional cohort of 13,000 young men and women between the ages of 14 and 21. This cohort includes for the first time those serving in the armed forces at the time of the initial interview. In addition to being the definitive U.S. national data set on the labor market activities of young adults, this continuing survey includes unique batteries of questions on such socially important issues as delinquency, alcohol and drug use, fertility, and prenatal care. For this cohort, field work is handled by the National Opinion Research Center. To date the Center's staff have prepared dozens of research monographs, special reports, and books on the NLS, and they also prepare and distribute data tapes for public use.

The Quality of Work Life Project, another ongoing study, began in 1975 as an attempt to improve the productivity and the meaningfulness of work for public employees in the cities of Springfield and Columbus. Center staff also served as third party advisers and researchers exploring new techniques for attainment of management-worker cooperation and worker health in a number of central Ohio private sector industries.

(Continued on inside back cover)

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Center for
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Research

The Ohio State University

Perceived Utility of Job Training
Methods Among Young Men

by
Stephen M. Hills and Richard Santos

November 1983

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This report was prepared under a contract with the Employment and Training Administration, U.S. Department of Labor, under the authority of the Comprehensive Employment and Training Act. Researchers undertaking such projects under government sponsorship are encouraged to express their own judgments. Interpretations or viewpoints stated in this report do not necessarily represent the official position or policy of the U.S. Department of Labor.

Perceived Utility of Job Training Methods Among Young Men

Stephen Hills and Richard Santos

Because job training in the U.S. is administered through employers, unions, the armed forces, public schools, and proprietary schools, data must be obtained from a variety of sources, each with its own limitations. Individual household surveys provide much of the data on training, but the emphasis is often on training provided through the formal educational system. For example, the Census Bureau gathers data on formal educational attainment through its regular household survey, and special youth surveys (The High School Class of 1972, High School and Beyond, The NLS Youth Cohort) provide detailed information on curriculum choices within the schools and on post-secondary training. Finally, the operational data obtained from training institutions themselves yield information on the number of individuals enrolled in training at a single point in time.

Combined data from individual surveys, household surveys, and training institutions suggest that at any one point in time between 5 and 6 percent of youth in their late teens and early 20's are enrolled in some sort of post-secondary job training (Pollard 1981; NCES 1981a).[1] In addition, 30 percent of youth in this age range were enrolled and continuing their formal education in "regular" school in 1979 (NCES 1981a). By age 22, one-fifth of

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[1] In 1978, 1.8 million students were enrolled in training programs provided by post-secondary institutions, both public and private (NCES 1981a). Since these trainees were drawn from all age groups, the data are not easily converted into a proportion of out-of-school youth enrolled in post-secondary training. If all trainees were age 18-24, however, the 1.8 million would account for approximately 6 percent of this age group. A comparable figure drawn from individual survey data is that 4.6 percent of out-of-high-school youth age 16-22 were enrolled in a post-secondary training program when interviewed in 1979 (Pollard 1981). The first-year survey for the High School and Beyond study showed that 6 percent of high school seniors planned to attend a trade or business school in the year following high school (NCES 1981b).

American youth will have received some post-secondary job training (Pollard 1981), and 25 percent will have completed high school in a curriculum which was largely vocational rather than academic or general (NCES 1981b, Table 1).

Although they yield a good picture of how formal training is acquired through schools, these data indicate little about how training is ultimately used. Furthermore, the emphasis on educational institutions yields little or no data on the training provided by employers. Surveying all private firms and public sector organizations to obtain data on such training would be impractical, but employed individuals can be surveyed and asked how they acquired the skills now used in their jobs. One such survey, conducted in the mid-1960's under the Manpower Development and Training Act, described skill acquisition across a wide range of occupations and industries (U.S. Department of Labor, 1964). Recently, two questions from this survey were repeated in the 1980 NLS survey of men age 28-38, thus producing data on men who were at a stage where post-school training should be contributing significantly to current work skills. A comparison of these post-school training data with the data on formal training at earlier ages should yield better insight into the skill acquisition process for men in their prime working years.

The 1980 NLS Data

In 1980, 3370 young men who were currently employed or had been employed in previous twelve months were asked about preparation for their jobs.[2] Two basic questions addressed job training: What training methods did you use to prepare for a job? and Which method was most useful? College courses, courses taken in a technical institute or in a trade, vocational or business school, company training courses, and training offered by the military are considered formal. Learning on the job from a supervisor or someone else, working one's way up through promotion, learning from a relative or friend and picking up skills on one's own are informal methods. Apprenticeship is considered a combination of formal and informal methods because of its classroom component.

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[2] Men age 28-38 were first interviewed in 1966. The 1980 interview was the 11th interview administered since 1966. Problems of attrition and its possible effects on these data are discussed in the appendix.

Multiple training methods could be identified by workers, but 65 percent reported only one. Table 1 shows the methods identified by young men to prepare for their current or most recent jobs. Informal methods greatly predominated, and on-the-job training (OJT) was by far the most popular--over 50 percent of the sample cited it as the most important. Whites ranked college courses as the second most important method, but informal methods ranked second for blacks. Fourteen percent of blacks picked up skills on their own, learned from relatives or friends, or worked their way up through promotion: only 7 percent indicated that they had acquired their skills through college. Furthermore, 12 percent of blacks indicated that no training was required for their jobs, compared with 4 percent of whites. Equal proportions of blacks and whites reported other formal methods in the "single most helpful" category--trade, vocational, or business schools, company training courses, military training or apprenticeship programs. Somewhat larger proportions of blacks than whites reported company training courses or the armed forces as most helpful; on the other hand, smaller proportions of blacks said that apprenticeship was most useful for them.

When considering all the methods used to prepare for jobs, we find similar rankings: almost 60 percent reported use of OJT. Informal methods

Table 1 Proportions of Men Age 28-38 in 1980 Reporting Use of Various Training Methods in Current or Last Job, by Race (percentage distribution)

Training Method	Single Most Helpful Method			All Methods Used[1]		
	White	Black	Total	White	Black	Total
Formal Methods						
College courses	15	7	14	26	9	25
Trade/vocational/ business school	4	4	4	8	5	8
Company training course	4	5	4	10	7	9
Armed Forces	2	3	2	2	4	3
Apprenticeship	4	2	3	5	3	5
Informal Methods						
On-the-job-training	51	54	51	59	60	59
Worked up by promotion	2	2	2	5	3	5
Relatives/friends	4	2	3	5	2	5
Osmosis-just picked it up	9	10	9	13	14	13
No training required	4	12	5	4	12	5
Other	3	0	2	5	1	5
Total	100	100	100	--	--	--
Sample Size	2656	714	3370	2656	714	3370

[1] Multiple methods could be reported. Thus percentages do not add to 100.

predominated; on the other hand, formal college courses were a strong second, reported by one-fourth of the whole sample as an important method for skill acquisition, but by only 9 percent of blacks. Almost three times more whites than blacks reported having had college coursework that was useful on their current jobs.

Respondents' Perceptions of Training Utilization

These perceived variations in usefulness of training methods may reflect both different participation rates in earlier training and differences in applicability of given types of training to subsequent jobs. The 1980 data can be used to establish the degree of previous participation in four types of formal training: 1) college, 2) trade, vocational, or business school, 3) the armed forces, and 4) apprenticeship. A comparison of these participation rates with the skill acquisition methods reported in 1980 will yield use rates for previously acquired training.

The rates of training use, as perceived by the NLS respondents, are shown in Table 2. Since the longitudinal record does not contain complete data on training,[3] the rates shown in Table 2 must be interpreted cautiously. Nevertheless some patterns seem clear. Much higher proportions of men who had

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[3] Even with regular interviews across time, data on accumulated training can be quite incomplete. For example, of those who cited military training as helpful for learning a job, only 47 percent had indicated in any of the interviews between 1966 and 1980 that they had ever been enrolled in military training. Eighty-three percent had been in the military but did not always report receiving specific training. Apprenticeship data are equally sketchy. Fifty-four percent of those who considered apprenticeship a useful means of acquiring job skills had recorded an apprenticeship in previous years. A low percentage occurs because apprenticeship data were obtained from respondents who had a journeyman's card. Data on schooling are more complete. Ninety-five percent of those who considered college courses helpful had been enrolled in college. The comparable figure for vocational/technical training was 70 percent.

Table 2 Proportions of Men Age 28-38 in 1980 Who Used Past Training as a Method to Learn Current Job Skills, by Race

	Blacks	Whites	Total
Percent of those with college courses who reported college as a training method for current job.	25	44	43
Percent of those with military training who reported military as a training method for current job.	17	6	7
Percent of those with a recorded apprenticeship who reported apprenticeship as a training method for current job.	31	37	37
Percent of those with vocational or trade school training who reported voc-ed as a training method for current job.	13	15	15

apprenticeship or college training cited these methods as important ways of learning jobs than was true for either vocational/technical training or training acquired in the military. Blacks were much more likely than whites to report that they had used their military training, and they were much less likely to consider that college courses were useful in acquiring job skills.

Some types of training clearly have more long-lasting relevance for acquiring the skills necessary for any one job. Of the four types of training, college course work was the most useful method when applied to the jobs held in 1980. Still, over half of the sample who had college training did not mention it as a method for acquiring job skills. Given job mobility, the training could have been useful on a previous job, if not on the specific job held in 1980. Our data do not measure the applicability of the training to previously held jobs, however.

The training use rate for men who had an earlier documented apprenticeship was almost as high as for men with college training. An argument traditionally made for apprenticeship training is that the wide range of skills acquired will be more generally applicable over a lifetime than would be the case if a craftsperson were trained specifically for his initial job. Since the use rate for apprenticeship training does not differ greatly from the rate for college courses, our data lend support to this argument. Compared to apprenticeship, the use rates for the specific skills learned in vocational or trade schools and in the military are certainly very much lower.

Training use rates show some quite dramatic differences by race. Little racial difference appears for post-secondary vocational training, but the use rate for apprenticeship training is several percentage points less for blacks than for whites, and the rate for military training is much greater for blacks than for whites. The apprenticeship rates may imply that blacks have a harder time remaining in craft occupations than do whites, even after completing apprenticeship training. On the other hand, blacks may use their military training more extensively than do whites because of different employment opportunities following military service. Jobs for blacks may be linked more strongly to military training and employment opportunities for whites may be more strongly linked to formal educational attainment.

A similar line of reasoning could explain the strong racial difference in use rates for college training. For the argument to apply, however, blacks with some college training would take quite different jobs than whites with similar training, and the jobs for blacks would, on average, rely less on the college training that blacks had received. Is there a significant racial difference in the kinds of jobs acquired by men who had some college training? Why would the difference exist? Do we need to control more precisely for the amount of college training acquired? Does college training become more applicable as men are promoted into more responsible positions and are blacks less likely to be promoted? Are there simply strong racial differences in perceptions regarding the utility of college training for any kind of job?

Some but not all of these questions are addressed through a multivariate analysis which regresses the probability of using a given type of training on education, occupation and race. In a regression based only on those men who had college training, for example, the amount of education acquired was a highly significant predictor of whether college courses were reported as methods for learning current job skills (Table 3). Those with more education were likely to report it as useful. Control variables for types of work were also significant predictors in the regression equation, but even after

Table 3 Least Squares Regression Estimates for the Probability of Reporting Use of Each of Four Training Methods in Current or Last Job in 1980 (t-values in parenthesis)

Dependent Variables	Selected Independent Variables[1]		$\bar{R}^2$	N
	Education in Years	Race Black		
Percent reporting use of college courses	.095*** (14.52)	-.082*** (-2.94)	.388	1708
Percent reporting use of military	-.019*** (-2.65)	.066* (1.82)	.019	498
Percent reporting use of apprenticeship	.011 (0.57)	-.181** (-2.04)	.136	208
Percent reporting use of vocational/trade school	-.016*** (-3.21)	-.023 (-0.82)	.039	1131

[1] Universe: Men age 28-38 who, from the longitudinal file, are known to have received each type of training. All regressions include control variables for one-digit occupation.

***significant at 1 percent, ** at 5 percent, * at 10 percent.

controlling for educational attainment and type of work, race was still strongly significant, leaving unanswered the question of why blacks consider their past college training less useful for performing their current jobs than do whites. Similar results occurred for apprenticeship training where, despite controls for level of education and kind of work, blacks were still significantly less likely than whites to cite their apprenticeship program as one of the methods they used to acquire current job skills.

Descriptive results for military training or training received from vocational technical schools were likewise not contradicted by the regression equations. In the former case, blacks were still significantly more likely than whites to report military training as a useful method and in the latter case, there was no significant racial difference. Regression analysis thus rules out the possibility that racial differences are due simply to different kinds of work or amounts of education. Future research is needed to determine why the racial differences persist in the perceived utility of training.

Skill Acquisition Methods and Formal Education

The mix of training methods differed significantly depending on a young man's formal educational attainment. High school graduates with some college (Table 4, col. 3) were more likely than any other educational group to use job skills learned through some training institution other than college. Sixteen percent cited trade/vocational, company training, or the armed forces as single most important methods of training. Men with some college were just as likely as men with no college to have learned their jobs through apprenticeship or in the armed forces, but they were considerably more likely to have acquired their job skills through company training or through trade, vocational or business schools.

Table 4 Training Methods Used by Educational Attainment, Men Age 28-38 in 1980

Training Method	Single most helpful method				Methods used			
	(1) High school dropouts	(2) High school graduates, no college	(3) High school graduates, 4 years college	(4) College graduates	(5) High school dropouts	(6) High school graduates, no college	(7) High school graduates, 4 years college	(8) College graduates
Formal Methods								
College courses	0	0	6	39	0	2	16	61
Trade/vocational/ business school	2	4	7	1	5	10	12	4
Company training course	1	4	7	4	5	8	13	10
Armed forces	1	2	2	1	1	3	3	1
Apprenticeship	3	5	5	1	3	7	6	1
Informal Methods								
On-the-job training	54	61	53	40	58	66	62	53
Worked up by promotion	2	1	3	2	3	4	5	6
Relatives/friends	7	4	3	2	8	5	4	3
Osmosis-just picked it up	19	10	8	5	25	14	12	8
No training required	9	7	4	3	9	7	4	3
Other	2	1	3	3	2	3	5	8
Sample size	469	1065	748	966	469	1065	748	966

Men with only a high school degree relied more on OJT for acquiring skills, and more reported that they picked up the skills on their own or that no training was required. High school dropouts relied heavily on informal training methods. Twenty-six percent either picked up job skills on their own or learned from relatives or friends as the principal means of preparing for their jobs. Another 9 percent indicated that their jobs required no training. For dropouts, training through technical institutes, companies, the armed forces or apprenticeship programs did not compensate for their lack of formal education but rather reinforced their disadvantaged position. Considerably fewer learned job skills by these methods than either high school graduates with no college or graduates who had obtained some additional college education.

Training Methods by Occupation and Industry

An important reason for a census of skill acquisition methods is to see how the methods vary across occupations and industries. Our data show that the variation is significant. Clerical workers and operatives rely more heavily on OJT to learn their jobs than any other occupational group. Sixty-five percent reported OJT as the single most helpful training method (Table 5). Nevertheless, a consistently high proportion of respondents reported OJT as the most helpful method, regardless of occupational category. With but two exceptions, men employed in farming and professional workers, 50 percent or more of any occupational group reported learning job skills through OJT. Even in the professions, 31 percent of respondents cited OJT as the single most important method for learning job skills.

Sales was by far the most likely occupation to acquire job skills through a formal company training program. In sales, technical and service positions,

Table 5 Single Most Helpful Training Method Reported Used in Current or Last Job by Men Age 28-38 in 1980, by Occupation[1]
(Percentage Distributions)

	Professional	Technical	Clerical	Sales	Crafts-persons	Operatives	Service	Farm Managers and laborers	Other laborers
Formal Methods									
College courses	49	11	12	4	2	1	3	2	1
Trade/vocational/ business school	4	2	4	2	8	2	6	0	0
Company training course	2	6	3	16	4	3	10	2	2
Armed forces	3	1	1	0	1	2	5	0	1
Apprenticeship	1	1	0	0	10	4	1	0	1
Informal Methods									
On-the-job training	31	57	65	50	52	67	49	34	52
Worked up by promotion	2	5	2	3	2	1	0	0	2
Relatives/friends	0	3	2	5	4	2	1	35	4
Osmosis-just picked it up	3	9	4	10	13	9	7	20	19
No training required	2	4	5	6	2	8	14	8	18
Other	4	2	2	5	1	1	5	0	0
Total	100	100	100	100	100	100	100	100	100

[1] Sample size is 3361.

company training was second only to OJT for providing job skills. Table 6 shows that in sales, 25 percent of the respondents cited company training as one of the methods used, in service jobs, the proportion was 18 percent and in technical occupations, 12 percent. The proportion who mentioned formal company training never exceeded 10 percent in any of the other occupational categories, surprising given the current emphasis on the development and training of personnel in large private firms.

Significant numbers of sales workers, craftsmen and laborers claimed to have learned job skills on their own. For crafts, 19 percent cited this as one of the methods of learning and 13 percent as the single most important method (see Tables 5 and 6). Despite the emphasis on formal apprenticeship in crafts occupations, the proportion learning job skills on their own was higher than in any other job category. Apprenticeships were cited by only 13 percent of craftsmen as one of the methods for learning job skills and by only 10 percent as the single most important method. As in other occupations, OJT was deemed more important, cited by 52 percent of the craftsmen as the single most important method of acquiring skills. Among all the job categories, service workers and laborers were the most likely to answer that no training was necessary for their jobs. Even here, OJT was cited by the majority as the main way to gain job skills.

Interesting variation also occurred across industries (Tables 7 and 8). Traditionally, public training institutions have placed considerable emphasis on training workers for the construction and manufacturing sectors of the economy. One envisions the training of machinists and carpenters as part of the "partnership" which can occur between the private sector and institutions providing formal training. This vision is far from the reality depicted by our respondents, however. In manufacturing only 13 percent reported that any

Table 6 Proportions of Men Age 28-38 in 1980 Reporting Use of Various Training Methods, by Occupation[1]

	Professional	Technical	Clerical	Sales	Crafts-persons	Operatives	Service	Farm managers and laborers	Other laborers
Formal Methods									
College courses	70	29	25	13	5	1	14	5	2
Trade/vocational/ business school	7	6	5	8	15	5	11	2	0
Company training course	6	12	10	25	8	7	18	2	2
Armed forces	4	2	1	1	3	2	6	0	1
Apprenticeship	3	2	0	0	13	5	1	0	1
On-the-job training	44	68	73	57	61	71	58	35	54
Worked up by promotion	6	9	5	6	3	1	1	0	2
Relatives/friends	1	5	2	7	5	3	2	43	4
Osmosis-just picked it up	7	12	7	13	19	12	8	26	22
No training required	2	4	5	6	2	8	14	8	18
Other	8	6	3	9	3	2	8	0	1

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[1] Sample size is 3357.

Table 7 Proportions of Men Age 28-38 in 1980 Reporting Use of Various Training Methods, by Industry[1]

	Agriculture	Mining	Construction	Manufacturing	Transportation	Trade	Finance insurance, real estate	Business and repair	Personal services	Entertainment and recreation	Professional services	Public administration
Formal Methods												
College courses	13	18	9	18	13	11	35	19	18	24	72	34
Trade/vocational/ business school	3	6	10	8	11	5	6	15	21	3	5	9
Company training course	2	14	2	9	17	10	28	8	16	4	3	17
Armed forces	0	6	1	2	6	1	1	3	3	0	2	6
Apprenticeship	0	3	15	5	6	3	0	1	2	9	3	1
Informal Methods												
On-the-job training	34	69	59	73	61	61	62	56	53	25	35	64
Worked up by promotion	0	8	2	6	5	5	3	4	10	9	2	6
Relatives/friends	35	2	8	2	4	5	3	5	2	11	1	1
Osmosis-just picked it up	23	9	24	9	10	17	8	17	16	30	8	6
No training required	10	8	4	3	6	8	3	9	2	12	5	5
Other	0	8	2	3	4	4	8	7	5	5	10	9
Sample size												

[1] Sample size is 3349.

Table 8 Single Most Helpful Training Method Used by Men Age 28-38 in 1980, by Industry[1]
(Percentage Distributions)

	Agriculture, forestry, fisheries	Mining	Construction	Manufacturing	Transportation	Wholesale and retail trade	Finance insurance, real estate	Business and repair	Personal services	Entertainment and recreation	Professional services	Public administration
Formal Methods												
College courses	8	7	4	9	5	5	14	7	8	14	57	14
Trade/vocational/ business school	1	0	4	4	4	3	2	9	14	3	3	3
Company training course	2	4	1	4	7	5	15	3	2	4	1	8
Armed forces	0	2	1	1	4	1	0	1	3	0	2	5
Apprenticeship	0	2	10	4	5	2	0	1	2	9	1	1
Informal Methods												
On-the-job training	32	56	51	65	56	53	54	48	44	21	23	53
Worked up by promotion	0	8	1	3	1	4	1	1	6	8	1	3
Relatives/friends	29	2	6	1	3	4	2	4	0	0	0	0
Osmosis-just picked it up	18	8	17	6	8	12	6	13	16	26	3	4
No training required	10	8	4	3	6	8	3	9	2	12	5	5
Other	0	4	1	1	1	2	4	5	2	3	5	4
Total	100	100	100	100	100	100	100	100	100	100	100	100

[1] Sample size is 3353.

formal training method other than college courses was the main way to learn a job, whereas two-thirds reported OJT (Table 8). In construction, 20 percent cited formal training (including apprenticeship) as the main method of acquiring skills and 51 percent cited OJT. Construction showed a higher proportion of men who learned their skills from a relative or friend than any other industry except agriculture. Over 75 percent in the agriculture industry rely primarily on informal methods; nearly a fifth "picked it up" and almost another third relied on OJT; 29 percent rely on relatives and friends. Wholesale and retail trade and the business and repair service industry also rely significantly on friends and relatives for preparing young men for their jobs. The greatest reliance on vocational and trade schools came from the business and repair and personal service industries, largely due to the number of auto mechanics, barbers and beauticians trained.

Training Methods in the Private Sector

Because of the current emphasis on private sector training, we subdivided our data to show what skill acquisition methods were reported by men employed in private firms. Within the private sector we expected different answers from white and blue collar employees because private firms tend to sponsor separate training programs for salaried and hourly employees. For the purpose of comparison, we defined white collar occupations as professional, managerial, clerical and sales positions. About 70 percent of the white collar jobs in our sample were professional or managerial and the remainder were clerical and sales. We defined blue collar occupations to be craft, operative, service, and laborer positions.

College training was one of the primary methods white collar private sector workers used to acquire job skills, second only to OJT (Table 9). Over

Table 9 Utility of Training Methods as Perceived by White and Blue Collar Males Age 28-38 in 1980 Working in the Private Sector

Training Method	Most helpful method			Methods used		
	White collar	Blue collar	Total	White collar	Blue collar	Total
Formal Methods						
College courses	20	1	10	39	3	20
Trade/vocational/ business school	3	4	4	7	9	8
Company training course	6	4	5	15	8	11
Armed forces	1	1	1	3	2	2
Apprenticeship	1	7	4	2	9	5
Informal Methods						
On-the-job training	54	61	58	66	66	66
Worked up by promotion	3	2	2	8	2	5
Relatives/ friends	1	2	2	2	3	2
Osmosis-just picked it up	4	11	8	8	15	12
No training required	3	7	5	3	7	5
Other	3	1	2	5	2	4
Sample size	1001	1366	2367	1001	1366	2367

one-third cited college training as one of the methods used to learn a job, and one-fifth listed it as the primary method. The proportion of workers who named company training as a skill acquisition method was almost twice as great among white collar workers as among blue. Only 8 percent of blue collar workers reported use of company training programs to learn job skills. On the other hand, 9 percent of blue collar workers but only 2 percent of white collar workers mentioned apprenticeship. Trade, vocational and business school training applied almost equally to the jobs held by white and blue collar workers in private firms.

An important question is what determines whether or not a worker will receive formal training financed in whole or in part by an employer. Company training may compliment or serve as a substitute for formal education. Race may or may not be an important factor influencing the receipt of training, once personal characteristics and the special characteristics of industries are controlled. Using regression analysis, we tested for these possibilities within the private sector. The dependent variable in the regression equation was whether or not formal company training and apprenticeship were reported as methods for learning job skills. Separate equations were estimated for white and blue collar workers, testing for the effects of education and race on the probability that company training or apprenticeship would be cited. Control variables included industry in which a respondent worked, whether or not he had received post-secondary vocational training, his attitudes (based on the Rotter scale)[4], and his past history of employment stability (proportion of the past 14 years in which a young man was unemployed).

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[4] The 4 items which refer to the respondent himself were used to calculate a score of internality or externality. Men who are more internal have a lower score and are presumed to be more motivated. See Gurin et al. (1978) for more information on the abbreviated scale.

For blue collar workers, formal education was a highly significant determinant of reported company training or apprenticeship (Table 10). Each additional year of education increased by 1.7 percentage points the probability that a respondent would report these two training methods. Race was also significant. All else constant, a black would be likely to report company training or apprenticeship at a level 8 percentage points lower than the level reported by whites. For blue collar workers, receipt of post-secondary vocational education had little influence on subsequent training in company or apprenticeship programs. Employment in the south did not significantly raise the probability of apprenticeship or company training, and married workers or workers who were more internal (more highly motivated) were not more likely to receive training. Employment stability over the past 14 years significantly raised the probability of training.

For white collar workers, neither the level of education nor race were significant predictors of subsequent company training. Married workers and "motivated" workers were more likely to have received training, though marital status was only marginally significant. The most important characteristic linked with reports of company training was industry: workers in finance, insurance and real estate, mining and transportation were more likely to report company training than those in manufacturing.

White collar workers on average have higher levels of education than do blue collar workers, so to conclude that white collar workers' levels of education have little impact on subsequent company training would not be warranted. Nevertheless within the higher range of education, variation in amount had little impact on reported company training as a skill acquisition method. On the other hand, variation within the range of educational levels characteristic of blue collar workers strongly affected their reports of

Table 10 Least Squares Regression Estimate for the Probability of Reporting Company Training or Apprenticeship as a Skill Acquisition Method in Private Sector Firms

	White Collar	Blue Collar
Education (years)	.001	.017***
	(0.15)	(3.79)
Received post-secondary voc-ed training	.048	-.001
	(1.05)	(-0.27)
Black	.003	-.080***
	(0.07)	(-3.43)
Rotter I/E score	-.009*	.001
	(-1.74)	(0.27)
Percent of last 14 years unemployed (in whole percentage points)	-.002	-.003**
	(-0.98)	(-2.23)
Married	.036	.030
	(1.34)	(1.34)
Resides in South	.023	.011
	(0.92)	(0.54)
Industry		
Agriculture	-.181	-.090*
	(-0.51)	(-1.81)
Mining	.281**	-.027
	(2.50)	(-0.55)
Transportation	.087*	.099***
	(1.98)	(3.27)
Construction	.046	.067**
	(0.77)	(2.32)
Wholesale/retail trade	.031	-.015
	(0.95)	(-0.46)
Recreation/entertainment	.007	.018
	(0.06)	(0.17)
Finance, insurance, real estate	.170***	-.120
	(4.37)	(-0.86)
Professional services	-.032	-.012
	(-0.88)	(-0.20)
Personal services	.030	.004
	(0.30)	(0.04)
Business services	.057	-.055
	(1.03)	(-1.23)
Manufacturing (base)		
Constant	.128	-.061
	(1.32)	(-0.85)
$\bar{R}^2$	.027	.047
F	2.52	5.13
Sample size	970	1310

***Significant at 1 percent, ** at 5 percent, * at 10 percent.

company training or apprenticeship programs. Race, furthermore, was strongly related to further training for blue collar workers, even after controlling for education levels. More attention should undoubtedly be paid to the causes of these strong differences between white collar and blue collar employees.

The Training of Crafts Workers

Because elaborate training methods are associated with the crafts, a more detailed analysis of this occupational category is desirable. Our data for craftsmen, however, point to a number of misconceptions about this group of workers. The crafts are often thought to rely heavily on apprenticeship and/or formal company training for developing skills. Yet with company training and apprenticeship combined, craft workers did not rank first in citing these two methods as key means for acquiring job skills. Sales workers relied more on company training than did craft workers on company training and apprenticeship combined (Table 5). The length of time required for learning skills, not the proportion who gain their skills through formal training, distinguishes craft workers from all others. Only 14 percent of craft workers stated that company training or apprenticeship was the most helpful principal method for acquiring job skills (Table 11).

A second misconception is to view craft occupations as alternatives to training in college, without recognizing how many craft workers have some college education. Almost a third of our sample of craftsmen in their prime working years had received some college training, and 7 percent of them were college graduates (Table 12). Two percent of the craftsmen who were sampled indicated that college coursework was the main method by which they had acquired job skills (Table 11). Thus entrance into a craft occupation did not preclude college training for a substantial number of our respondents.

Table 11 Utility of Training Methods Perceived by Male Craft Workers Age 28-38 in 1980, by Race

Training Method	Most helpful method			Methods used		
	White	Black	Total	White	Black	Total
Formal Methods						
College courses	3	0	2	6	1	5
Trade/vocational/ business school	8	8	8	15	13	15
Company training course	4	1	4	9	5	8
Armed forces	1	1	1	3	1	3
Apprenticeship	11	4	10	14	11	13
Informal Methods						
On-the-job training	52	59	52	60	67	61
Worked up by promotion	2	3	2	3	4	3
Relatives/ friends	4	6	4	5	7	5
Osmosis-just picked it up	13	13	13	20	16	19
No training required	2	4	2	2	4	2
Other	2	0	1	3	2	3
Sample size	553	147	700	553	147	700

Table 12 Educational Attainment of Male Craftsworkers Age 28-38 in 1980, by Race

(Percentage Distributions)

Educational attainment	Race		
	White	Black	Total
High school dropout	18	31	19
High school graduate, no college	50	38	49
High school graduate, some college	25	26	25
College graduate	7	5	7
Sample size	532	135	667

Finally, apprenticeship is often seen as the major vehicle for excluding blacks from craft occupations. Apprenticeship is, however, only one of several sources of discrimination. In Table 11 are shown the training methods reported by both white and black craftsmen. Substantially fewer black craftsmen than white cited apprenticeship as one method or as the single most important method for acquiring job skills. Yet similar racial differences are also apparent in virtually all of the other training methods listed for craftsmen. Blacks were much less likely than whites to mention college courses, company training, or the military as methods for learning skills and somewhat less likely than whites to mention trade, vocational or business school training. Blacks relied instead on informal training methods such as OJT or learning from relatives and friends.

We saw from the earlier regression analysis for blue collar workers that the degree of formal education significantly affects the probability of receiving company training. A certain level of formal education is also necessary to continue training in college, in vocational schools, and in trade or business schools and may be used to screen in candidates for military training as well. As a consequence a lower level of educational attainment among black craftsmen led to less training relative to whites. Thirty-one percent of our black craftsmen were high school dropouts compared with 18 percent of the white sample. Thirty-eight percent of the blacks were high school graduates with no college, whereas 50 percent of whites had comparable educational attainment (Table 12). Apparently more blacks than whites selected craft jobs as an alternative to continuing their education and then subsequently received less formal training. Formal education may therefore be serving as an important screening mechanism. An important question is whether educational attainment helps to identify future craft workers with the most ability or whether it instead contributes to subsequent discrimination against blacks.

Summary

The NLS respondents interviewed in 1980 reinforced the finding from the mid-1960's that OJT is by far the most prevalent way of acquiring job skills. The earlier study of all labor force participants aged 22-64 found that 37 percent of those with less than three years of college reported OJT as the most helpful method of acquiring job skills. Our sample of young men aged 28-38 in 1980 also relied heavily on training on the job, 56 percent of those with less than three years of college reporting OJT as the main method for acquiring current job skills. Men in private sector firms did not rely heavily on formal training to acquire skills, but the industries where formal training programs were mentioned most often were mining, transportation, construction, and finance, insurance and real estate. The occupation most strongly associated with formal training was sales, and not, as might have been thought, the crafts.

Race and education were important determinants of formal training among blue collar workers. Less educated black workers were significantly less inclined to report company training as a skill acquisition method than their more highly educated white counterparts. Among white collar workers, however, neither differences in educational attainment nor race were important predictors of reported formal training. Motivation, marital status and industry were key factors instead.

Race was an important factor throughout this study. Rates of use of training differed strongly by race and were unaffected by introducing controls for level of education and type of job held. Race also affected the mix of training methods reported by craftsmen, and its effects were shown in areas other than apprenticeship. Black craftsmen, because of their lower educational attainment, had less opportunity for any kind of formal training subsequent to schooling, apprenticeship or otherwise.

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Appendix

Because this report relies heavily on descriptive statistics drawn from the 14th year of a longitudinal survey, questions may arise regarding the data sample's representativeness. Attrition rates by the 1980 survey were 70 percent for whites and 54 percent for blacks. Weighted data are used throughout this report to adjust both for the oversampling of blacks in 1966 and for attrition between 1966 and 1980. The adjustment for attrition, however, is only partial. A comparison of mean values for selected 1966 characteristics, using both the original 1966 sample and the weighted 1980 sample, reveals some differences in population estimates. Examples are shown below.

1966 Characteristic	1966 estimate weighted to adjust for race (in percent)		1980 estimate weighted to adjust for race and attrition (in percent)	
	Blacks	Whites	Blacks	Whites
Age				
14-19	64.7	64.2	62.6	60.9
20-24	35.3	35.8	37.4	39.1
Education				
12 years	71.0	53.1	65.0	48.3
12 years	21.4	25.2	24.5	26.8
12 years	7.6	21.7	10.6	24.9
Percent Urban In an SMSA	65.8	70.1	61.8	68.9

For blacks and whites alike, respondents who were younger or less well educated in 1966 were more likely to be lost from the sample. Blacks differed from whites in that more urban respondents were lost from the sample by 1980. The proportion of white urban respondents was almost the same in 1980 as it was in 1966. Thus to the degree that training methods differ for urban and rural young men, the estimates in this report are biased toward the methods used by rural black men. The bias does not seem large, however.

The Center has also been active in manpower planning both in the U.S. and in the developing countries. A project for the Ohio Advisory Council for Vocational Education identified the highly fragmented institutions and agencies which supply vocational and technical training in Ohio. Subsequent projects for the Ohio Occupational Information Coordinating Committee have followed graduates of these programs. These data and information on occupational distributions of employers collected for the Occupational Employment Statistics Program are being integrated into a comprehensive planning model which will be accessible to trainees and employers and linked to a national network.

Another focus of the Center's research is industrial relations and collective bargaining. In a project for the U.S. Department of Labor, staff members are working with unions and management in a variety of industries to evaluate several current experiments for expedited grievance procedures. The procedural adequacies, safeguards for due process, and cost and timing of the new procedure are being weighed against traditional arbitration techniques.

Senior staff also serve as consultants to many boards and commissions at the national and state level. Recently the Center's staff have produced papers and prepared testimony for the Department of Labor, the Vice President's Task Force on Youth Unemployment, the Joint Economic Committee of Congress, the National Commission for Employment and Unemployment Statistics, the National Commission for Employment Policy, the White House Conference on the Family, the Ohio Department of Corrections, the Ohio Board of Regents, the Ohio Governor's Task Force on Health, and the Ohio Governor's Task Force on Welfare.

The Center maintains a working library of approximately 10,000 titles, including a wide range of reference works and current periodicals, as well as an extensive microfilm and microfiche collection. Through their facilities linked to the University computer, the Center's data processing staff provide statistical, technical, and programming support both for in-house researchers and the over 250 users of the National Longitudinal Surveys data tapes. They maintain the NLS tapes, data base, documentation, and associated software.

For information on specific Center activities, write: Director, Center for Human Resource Research, 5701 North High Street, Worthington, Ohio 43085.

OSU

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Center for Human Resource Research

The Center for Human Resource Research is a policy-oriented multidisciplinary research organization affiliated with The Ohio State University. Established in 1965, the Center is concerned with a wide range of contemporary problems related to developing and conserving human resources. Its more than thirty senior staff members come from disciplines including economics, education, English, health sciences, industrial relations, management science, psychology, public administration, social work, and sociology. This multidisciplinary team is supported by approximately 70 graduate research associates, full-time research assistants, computer programmers, and other personnel.

The Center has become preeminent in the fields of labor market research and manpower planning. With continuing support from the United States Department of Labor, the Center has been responsible since 1965 for the National Longitudinal Surveys of Labor Market Experience. Staff have assisted in population and human resource planning throughout the world, having conducted major studies in Bolivia, Ecuador, Kenya, Sierra Leone, Venezuela, and Zaire. At the request of the National Science Foundation, a review of the state of the art in human resource planning was conducted. Other studies have assessed the impact of labor and education policy on labor supply and evaluated employment statistics collection methods. Senior personnel are also engaged in several other areas of research—collective bargaining and labor relations, evaluation and monitoring of the operation of government employment and training programs, and the projection of health education and facility needs.

The Center for Human Resource Research has received over two million dollars annually from government agencies and private foundations to support its research in recent years. Providing support have been the U.S. Departments of Labor, State, Defense, Education, Health and Human Services; Ohio's Health and Education Departments and Bureau of Employment Services; the Ohio cities of Columbus and Springfield; the Ohio AFL-CIO; the George Gund Foundation; the Rockefeller Foundation; and the Ford Foundation. The breadth of the Center's research interests is best illustrated by a brief review of a few of its current projects.

The Center's largest project is the National Longitudinal Surveys of Labor Market Experience. This project has involved repeated interviews over a fifteen-year period with four groups of the United States population: older men, middle-aged women, and young men and women. The data are collected for 20,000 individuals by the U.S. Bureau of the Census, and the center is responsible for data analysis. Since 1979, the NLS has followed an additional cohort of 13,000 young men and women between the ages of 14 and 21. This cohort includes for the first time those serving in the armed forces at the time of the initial interview. In addition to being the definitive U.S. national data set on the labor market activities of young adults, this continuing survey includes unique batteries of questions on such socially important issues as delinquency, alcohol and drug use, fertility, and prenatal care. For this cohort, field work is handled by the National Opinion Research Center. To date the Center's staff have prepared dozens of research monographs, special reports, and books on the NLS, and they also prepare and distribute data tapes for public use.

The Quality of Work Life Project, another ongoing study, began in 1975 as an attempt to improve the productivity and the meaningfulness of work for public employees in the cities of Springfield and Columbus. Center staff also served as third party advisers and researchers exploring new techniques for attainment of management-worker cooperation and worker health in a number of central Ohio private sector industries.

(Continued on inside back cover)

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Welfare Incidence and Welfare
Dependency Among American Women:
A Longitudinal Examination

by

Frank L. Mott

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Abstract

This research uses data from the National Longitudinal Surveys of Work Experience of Young Women, spanning the 1968 to 1980 period, to measure the incidence and intensity of welfare attachment. In addition to examining the propensity of young women and their families to repeatedly receive welfare, both within and across generations, the research examines variations in short and longer term welfare receipt by race, family status and socioeconomic background. The results indicate that while relatively large proportions of women require welfare assistance at some time, a relatively small proportion of women account for a large part of the welfare case load. Family and employment considerations both are important predictors of longer term welfare attachment for both black and white women.

Consistent with evidence from other research, the results suggest that the probability of subsequently leaving the welfare rolls declines sharply as duration of time on the rolls increases. Also, there is only limited support for the notion that a propensity to be on welfare is transmitted across generations. Finally, the results indicate that the greater propensity for black women to receive welfare reflects for the most part differences in family and socioeconomic characteristics between the races. There is no support for the thesis that black families are more likely to repeatedly receive welfare after controlling for socioeconomic and demographic differences between the races.

Table of Contents

Page

Introduction....................1

The Research Objectives....................1

The Data Set and Definition of Welfare....................5

Overall Trends in Welfare and Poverty Status, 1968 to 1978....................7

Welfare, Poverty and Employment....................9

The Incidence and Intensity of Welfare Receipt, 1968-1980....................11

The Determinants of Welfare Incidence and Prevalence: A Multivariate Perspective....................13

The Research....................13

Characteristics of the Welfare Population....................17

Determinants of Welfare Receipt in 1978: A Cross-Sectional Analysis....................19

Variations in Determinants of Welfare Receipt by Type of Welfare Received....................23

Determinants of Ever Having Received Welfare Since Leaving the Parental Home....................25

Who are the Welfare Repeaters?....................28

Summary and Conclusions....................32

Footnotes....................36

References....................39

INTRODUCTION

A growing body of literature in recent years has documented the heterogeneity of the "welfare population" and the diverse reasons why people go on welfare. The better-documented studies in this research area have utilized the University of Michigan Population Study of Income Dynamics (PSID) to consider issues associated with welfare for a full cross-section of the population. These studies and others suggest that young women in the principal childbearing years frequently are prime candidates for receiving welfare, because of the cost of rearing children and the constraint young children impose on a woman's ability to work, particularly in households where no adult man is present (Duvall, et al., 1982; Haggstrom, et al., 1981; Coe, 1981).

This study focuses on these young women and examines (1) trends in welfare receipt for these women and their families between 1968 and 1980, and (2) how the incidence and intensity of welfare receipt may be sensitive to background characteristics of a woman and her family. A particular emphasis of the research will be to measure the extent to which young women and their families evidence welfare dependency--both within and across generations. The data are from the National Longitudinal Surveys of Work Experience of Young Women (NLS); respondents were first interviewed when they were 14 to 24 years of age in 1968, were still being interviewed in 1980 and had been interviewed in all ten surveys during that twelve year period.[1]

THE RESEARCH OBJECTIVES

There is a consensus that welfare and poverty statistics can be easily misinterpreted, depending on the nature of the statistics. For example, an examination of cross-sectional welfare statistics at any one point in time can overstate the proportion of long term cases because those family units or individuals who have above average tendencies to remain on welfare will have accumulated on the rolls. Retrospective reporting, on the other hand, can lead to an understatement of welfare levels for those who received it in the more distant past. An accurate portrayal of the true relationship between short and long term welfare attachment requires panel data (such as the NLS or PSID) which follows the same individuals over a lengthy period of time (see Coe, 1981 for an extensive discussion of this issue). A particular advantage of the NLS in this regard is that it follows a large cohort of young women in the childbearing years. This cohort also includes a substantial over-sampling of black young women (about 30 percent of the total sample), thus permitting a careful examination of a group about whom there is particular policy interest.

Recent research generally supports the notion that although relatively large proportions of the adult population may need to receive welfare for brief periods of time, much smaller proportions spend a substantial proportion of their lives on welfare (Bumpass and Sweet, 1981; Levitan, et al., 1972; Coe, 1981; Boskin and Nold, 1975; Coe, 1979). The specific welfare probabilities indicated by different researchers vary across surveys, reflecting differences in sample selection, time references and definitions of welfare; but the above generalization is supported by most research. One objective of the present study is to examine welfare prevalence over a fairly lengthy period among a nationally representative sample of young adult black and white women. Such a study has not previously been accomplished.

A related objective here is to measure the extent to which the relationship between ever receiving welfare and continually receiving welfare varies between young women who have different characteristics and between white and black women. Some other studies suggest that women with low potential wages (Boskin and Nold, 1975; Coe, 1979), who are black (Coe, 1981; Ross and Sawhill, 1975; Wiseman, 1976; Boskin and Nold, 1975; Coe, 1978), or less educated (Coe, 1979) are more likely to be among the long-term welfare group. However, these results are not incontrovertible as Barr and Hill (1981) found no evidence of racial differences in welfare prevalence after controlling for a range of socioeconomic background factors and Coe (1981) found that human capital variables were only associated with above average propensities for short-term welfare receipt. This study will more effectively control for temporally contiguous and earlier status variables than has been possible in many other studies and it will thus perhaps suggest more clearly whether factors such as race and education are truly independent predictors of short and long term welfare access.

There has also been considerable interest in whether or not any pronounced tendency shows up for welfare to be self-perpetuating, both within and across generations. Substantial evidence suggests that the longer an individual and his or her family are on welfare, the lower the likelihood that they will subsequently leave the welfare rolls (Coe, 1981; Coe, 1979; Rein and Rainwater, 1978).[2] These "repeaters" may account for only a small proportion of the individuals receiving welfare but a much larger proportion of the total cumulated cases over time (Coe, 1981). This issue has major policy significance: the kinds of remedies required for keeping family units from needing income transfers can be quite different, depending on whether they need help during a short transition or long term help because they have no potential breadwinner. Rein and Rainwater (1978) for example, find no significant welfare class *per se*, but they do observe that families seek welfare for a number of reasons. Substantial numbers undoubtedly use welfare temporarily during transitions between jobs or life cycle stages or in other situations of unusual but temporary financial stress. Perhaps some individuals go on welfare as part of an "income maximizing strategy"; these, in the words of Rein and Rainwater "have income options other than welfare, but opt to rely upon welfare as the stable foundation for their income package" (Rein and Rainwater, 1978, p. 530). Finally, a third group, of undefined size, are in a sense (again, following the terminology of Rein and Rainwater) "locked in" to welfare. These individuals "lack a social support system to aid them in altering their circumstances"--and for various reasons are unable to alter their circumstances on their own. Most evidence suggests that the first of the three categories dominate the welfare rolls. Although the NLS includes no direct information about the motives of the young female respondents, these longitudinal data permit analysis of the extent to which welfare use is self-perpetuating and whether or not a substantial proportion of all welfare cases over a period of time can be attributed to a relatively small percentage of the population.

Finally, to the extent the data permit, this research will consider whether there is evidence of an intergenerational transmission of a propensity to be on welfare, an issue which permeates the welfare-related social policy literature of the past two decades. No definitive quantitative studies of this issue exist, but there are numerous ideological differences of opinion. Earlier literature (e.g., Moynihan, 1965; Frazier, 1966; Greenleigh, 1969) tended to support the idea that there is indeed an intergenerational transmission of poverty "values," but more recent literature (e.g., Rossi and Blum, 1968; Goodwin, 1972; Rein and Rainwater, 1978) disputes the earlier theoretical orientation as well as the quantitative findings.[3] Most recent quantitative studies of this issue support the notion that poverty or welfare values per se are not transmitted (e.g., Harrison, 1977, cited in Coe, 1981; Rein and Rainwater, 1978). Using the PSID, Rein and Rainwater, in particular, found that after controlling for poverty background no evidence of welfare dependency in children's own homes appears at subsequent points in time; i.e., there is no apparent tendency for welfare to be perpetuated into the second generation, once earnings of parents are controlled for. Because this study focuses specifically on a sample of young women in the NLS who were still living with their parents in 1968, it can consider this issue directly.

THE DATA SET AND DEFINITION OF WELFARE

This study examines the welfare propensities of the 2,492 white and 877 black young women who were 14 to 24 years of age when first interviewed in 1968, and for whom all of the relevant information was available for all ten interviews between 1968 and 1980. The young women were interviewed each year between 1968 and 1973, and again in 1975, 1977, 1978 and 1980. By the 1980 survey they were ages 26 to 36.

Whether or not they were welfare recipients was determined for all surveys between 1968 and 1977 by response to a question "Did anyone in this family receive any welfare or public assistance in the last 12 months?" Welfare receipt in 1978 was based on a positive response to any of several questions asking about receipt of food stamps, A.F.D.C., Supplemental Security income or any other public assistance from the local, state or federal government by either the respondent or her husband. Finally, in 1980, welfare receipt was defined on the basis of a positive response to either of two questions--receipt by the respondent or her husband of food stamps during the past twelve months or receipt of any other public welfare or public assistance. An examination of welfare receipt trend lines between 1968-1977 and 1978 suggested no apparent discontinuity due to wording discrepancies.[4] Also, it should be noted that the 1968-1977 responses focused on welfare assistance to anyone in the family, including not only spouses, but also parents and other relatives: this fact is important because the young women in this sample were at the life cycle stage where they typically were moving from their parents' homes to their own household. Having this information both for when the respondent was living in her parental home and when she moved into her own household permits consideration of issues associated with propensities toward intergenerational welfare transmission.

The more elaborate itemization of welfare sources specified in the 1978 NLS interview schedule indicated that the single most important welfare source for this population group is food stamps (78 percent of all welfare recipients) followed by Aid for Dependent Children (48 percent) and "other sources" (26 percent). The distribution of welfare receipt by source was similar for black and white respondents. The percentages exceed 100 percent because an individual or her family could be receiving more than one form of welfare. Indeed, three quarters of women receiving A.F.D.C. also were receiving food stamps and about half of women receiving food stamps were receiving A.F.D.C. Much smaller proportions were receiving one of the above as well as other welfare funds. This pattern is very similar to other evidence from the new (1979) Youth Cohort of the National Longitudinal Surveys for a somewhat comparable group of young women (see Mott and Maxwell, 1981).

OVERALL TRENDS IN WELFARE AND POVERTY STATUS, 1968 TO 1978

The income, poverty and welfare status of an individual and her family can be quite sensitive to her life cycle stage, whether or not she is still in her parental home, her marital status and whether or not she has children of her own.[5] As can be seen in Table 1, in 1968 about 3 of every 5 respondents in the sample were living with their parents, and only 1 in 5 was a mother living in her own household. By 1978, only about 7 percent were still living with their parents; not surprisingly, the dominant group, almost 70 percent, were young mothers living in their own homes. The welfare implications of these differing life cycle stages are considerable, particularly because the reference unit for the question on welfare in most of the surveys was the family unit in which the respondent resided.

When the respondent was living with her parents the question pertained to everyone in her parents' household, which in some cases included many individuals (Mott and Maxwell, 1981). Once they left their parents' residence, the average family typically includes only the respondent, her children and possibly her spouse. Although these nuclear families have fewer individuals who could be receiving welfare, their probabilities of doing so are perhaps higher, particularly in family units including a child, but no father.

Table 2 shows that between 1968 and 1978, the overall percentage of the young women's family units receiving at least some welfare payments increased from 4.6 to 9.7 percent with substantial percentage increases being noted for both races, although the black levels at both points in time were considerably higher than the white levels. Note that the percentage of family units in poverty was declining substantially for both races during the same decade.

Table 2 also shows that this increase in welfare receipt over the decade reflected almost entirely increases for young mothers living in their own households, the group which absolutely and proportionately showed the largest increase over that time period. This group, incidentally, also showed some decline in poverty status over the decade. Once again, this trend was prevalent for both races, although levels of involvement with welfare and poverty were substantially higher for black families in both 1968 and 1978.[6]

As of 1978, 9.7 percent of the women (then 24 to 34) and their families were receiving welfare--about 7 percent of whites and 31 percent of blacks. About the same percentages were in poverty. In contrast, in 1968, the percentage of family units in poverty far exceeded the percentages on welfare.

A number of reasons have been suggested for this change in the relationship between welfare receipt and poverty status over the decade. Although these reasons are listed here, an evaluation of their relevance is beyond the scope of this research. In addition, the pattern of welfare regulation changes cannot be comprehensively considered in an abbreviated manner because of state variations in regulations and the differential timing of changes in state regulations.[7] Reasons given for the increased incidence of welfare receipt in the late 1960s and early 1970s include (1) the increase in the real value of the average payment (Coe, 1981), (2) more extensive geographical coverage (Coe, 1981), (3) reduction in the effective tax rate and the related liberalization in the treatment of non-earnings income when determining eligibility (Wiseman, 1976), (4) a general increase in knowledge of the welfare system by the potentially eligible population (Lyon, 1976), and (5) the increasing legitimacy of welfare dependency among the potentially eligible population. In more recent years, the deteriorating employment situation has undoubtedly contributed to the burgeoning welfare rolls.

Focusing briefly on the household living in poverty, Table 3 shows the importance of parenthood as a determinant of welfare receipt and as a determinant of increases in welfare receipt over the decade. In 1968, about 27 percent of the relatively small number of family units that included mothers living in poverty were receiving welfare; by 1978, fully 65 percent of the much larger number of poverty households including mothers were on welfare. Among black poverty families in this status, 80 percent receive at least some form of welfare payment. These, indeed, are the groups which define the overall level of welfare participation for young women.

Welfare, Poverty and Employment

Although it is not the central theme of this paper, it is useful to examine the links between poverty, welfare and employment and whether they have been altered over the decade. These linkages are obviously sensitive to some of the changes in regulations and norms suggested in the preceding section.

Because overall levels of employment among young adults are related to age, independent of other life cycle events, Tables 4 and 5 include some summary statistics to show trends in the welfare-employment association for 20 to 24 year olds and 25 to 29 year olds at two points in time. Sample limitations constrain these comparisons to 20-24 year olds in 1968 and 1973 and 25-29 year olds in 1973 and 1978. Paralleling the earlier overall results, Table 4 shows that the proportion of mothers in each of the five year age groups receiving welfare increased over the two respective five year periods. No similar movement appeared for the percentages in poverty.

Examining the employed and not employed respondents separately, it may be noted that although both groups witnessed increases in welfare participation, the trend for the not employed group was much more pronounced. For example, welfare probabilities for employed 20 to 24 year old mothers increased from about 7 to 10 percent between 1968 and 1973 compared with 7 and 21 percent for their non-working counterparts. A comparable trend may be noted between the mothers who were 25 to 29 in 1973 and 1978. Thus, while working mothers were somewhat more likely to supplement their family's income through welfare in the later 1970s, the likelihood of their receiving welfare in comparison with their non-working counterparts is substantially less than in earlier years.

The importance of employment as a mechanism for avoiding poverty may also be noted. This is perhaps more true now than in the late 1960s. The overall percent in poverty among the families of employed mothers declined over the decade. In contrast, poverty probabilities rose considerably for families of non-employed mothers.

Shifting focus slightly, Table 5 documents trends in several employment characteristics over the decade by the respondents' welfare and poverty status. Focusing on the mothers in the sample, several important trends may be noted. Whereas the overall level of employment for the mothers increased sharply during the decade, the percent of mothers living in poverty who were employed declined as did the employment rate for women on welfare. However, the employment rate for women on welfare but not in poverty rose substantially. Thus, significant numbers of women are clearly using the joint vehicles of welfare and employment to help raise their family's income above the poverty threshold.

It is also of some importance to note for the mothers on welfare and living in poverty, the enormous discrepancy between their labor force participation rates and their actual employment, particularly for the more recent time periods. Among such 20 to 24 year old mothers in 1973, 39.1 percent were in the labor force but only 20 percent were employed, an effective unemployment rate of almost 50 percent! Among their 25 to 29 year old counterparts in 1978, about 25 percent were in the labor force but only 6 percent were employed. These statistics suggest rather strongly that this joint poverty-welfare status is not voluntary for many of the young mothers. In any event, it is clear that the capability of finding employment among these poor mothers on welfare dramatically worsened over the decade, undoubtedly reflecting at least in part deteriorating economic conditions, particularly for lesser skilled and educated women (Mott and Shapiro, 1983).

THE INCIDENCE AND INTENSITY OF WELFARE RECEIPT, 1968-1980

From a policy perspective, the motives for a family to be and remain on welfare are probably intricately related to their potential for getting off welfare. It has been suggested that the welfare population, as of one point in time, can be quite heterogeneous in this regard. While this research cannot untangle motives, what it can do is suggest the magnitudes of the prevalence of different welfare subgroups and, in the subsequent multivariate analysis, indicate whether or not there is any substantial basis for the notion that the propensity to be on welfare goes beyond the peculiar short term characteristics of a young woman, her family, and her environment.

Overall, 20.6 percent of the white respondents and 67.6 percent of the black respondents acknowledged receiving welfare in at least one survey year over the period under consideration (ten interviews actually encompassing a thirteen year period).[8,9] Thus, a significant majority of the young adult black female population and their families receive welfare at some point in time compared to a much smaller but still substantial minority of the white population. The average white respondent reported receiving welfare .5 surveys over the decade compared with 2.8 surveys for her black counterpart. It is possible that the fairly ubiquitous prevalence of welfare within the black population has significant implications for the normative acceptability of welfare within that population subgroup. This issue will be considered further in the multivariate analysis below.

Black women are not only more likely to need welfare at some time, but in addition, are more likely to be repeaters. The average white woman (and her family) who received welfare over the ten survey period was on welfare 2.5 surveys, on the average, compared with 4.2 surveys for the average black. Table 6 specifies the distribution of the number of welfare appearances for this "ever welfare" population. It is clear that black women are more likely to repeatedly use welfare. Whereas about half of the white participants required welfare assistance in only one of the ten years, half of the black recipients reported receiving assistance in at least 4 of the 10 survey years. This differential may have significant implications for the kinds of assistance different welfare recipients may require. Table 7, which distributes the total number of welfare occurrences over the ten years (as opposed to number of welfare cases) in relation to the frequency with which the individuals involved received welfare may help clarify this point. For blacks, almost half of all the welfare occurrences are accounted for by women who were on welfare at least seven of the ten surveys. In contrast, almost half of all welfare occurrences among whites are by women who were on welfare three surveys or less. The capability for finding employment by the average woman who has been on welfare most surveys will probably be substantially below that of the woman who has required welfare assistance only once or twice. It is suggested that the mix of funding allocations for direct income maintenance as contrasted with training, education or other vocational guidance, should be made with this temporal dimension in view. The average family where a woman has had only a brief interruption in her employment (or in her husband's employment) will probably require different forms of assistance than the family unit whose break with the labor market has been more extensive.

Finally, consistent with what has been reported using other survey data, particularly the PSID, the greater the length of time a respondent remains on welfare, the lower the likelihood that she will leave the welfare rolls (Coe, 1979; Rein and Rainwater, 1978). Table 8 includes welfare transition probabilities for black and white women who have been receiving welfare for varying numbers of successive surveys. While the probabilities fluctuate somewhat at the higher levels, reflecting smaller sample sizes, there is a fairly steady pattern of increased probabilities of remaining on welfare as the number of successive surveys one has been on welfare increase, although a plateau is ultimately reached. This relationship suggests that without outside intervention, the probability that an individual will leave the welfare rolls once she has been on the rolls for a period of time is very slim.

THE DETERMINANTS OF WELFARE INCIDENCE AND PREVALENCE: A MULTIVARIATE PERSPECTIVE

The Research

In this section, multivariate techniques are used to examine differences between the determinants of welfare use for long and short term welfare recipients in comparison with respondents not receiving welfare. Three models will be considered, focusing on different dimensions of welfare use and the welfare population. The first model will consider the determinants of welfare use in a cross-sectional context with the dependent variable being the probability of the respondent or her spouse receiving welfare in 1978. The independent variables will for the most part relate to the characteristics of the respondent and her environment as of that time. The sole exceptions will be two variables specifying whether or not the woman's parents were in poverty or receiving welfare when she last lived with them. This model is fairly standard in the sense that it taps the usual dimensions of one point in time attachment to welfare which have typically been considered by other researchers. What the individual predictors will purport to measure are (1) the extent to which shorter term exigencies such as inadequate income, employment and family status, or health are independent predictors of being on welfare at that particular time, (2) whether racial differences in this propensity appear after controlling for other factors and (3) whether there is any clear evidence of a direct intergenerational transmission of a tendency to receive welfare, for a point in time well removed from when the woman had lived with her parents.

This latter objective is operationalized as follows. First, the sample is constrained to young women who must have been living in their parental home in 1968, the first survey year. Second, the woman must have left her parental home before the 1973 survey, so as to ensure a reasonable number of years in which the woman was living in her own household as well as at least one survey (1978) temporally distant from when she resided with her parent(s). For all of the survey years in which she was living with her parents, welfare receipt of course refers to receipt by anyone in the parental household. The parent welfare variable in all of the models in this research is simply a dummy variable specifying whether or not the parental household was receiving welfare for a majority of the survey years between 1968 and when the respondent left home.[10] The parental poverty status variable (according to standard OMB criteria)[11] was constructed in an analogous manner. While these variables have obvious limitations, they nonetheless permit some quantification of background welfare and poverty status. As such, it is possible to quantify the extent of cross-generational welfare attachment more effectively than do most other research efforts.

The cross-sectional analysis will also briefly and separately examine the independent predictors of A.F.D.C., food stamp and other welfare receipt during the year preceding the 1978 survey. The principal reasons for these analyses are to clarify whether our more general welfare analyses are substantially mis-stating the determinants of either of the two major welfare sources (e.g., food stamps and A.F.D.C.) for women in this age range. The 1978 survey round is the only one which included separate specification of these welfare components. If the determinants of these two welfare sources differ substantially from each other and from the overall cross-sectional model, conclusions drawn with regard to the overall welfare models included in this analysis would require qualification.

The second general model has as its outcome variable the probability that a respondent (or her family) ever received welfare in any survey year after leaving her parents' home. This variable encompasses, to the maximum extent feasible, all respondents who ever had a need to use the welfare system. It represents the least intensive but most extensive welfare group. From a program perspective, this group will maximally include respondents who need temporary assistance. As such it provides a good measure of the kinds of people who, in the long run, require welfare assistance, but in no way represents a typical case load (e.g., the 1978 cross-section)--which would include a heavier representation of long term clients. The predictors included in this model are likewise of a longer-term nature, representing the longer term characteristics of the respondents and their environment. They include, for example, the proportion of the surveys since leaving home that the respondent was in poverty, had children in a never-married or separated capacity, was employed 26 or more weeks and so on (the complete model will be defined below). In addition, the same two parental background welfare and poverty variables specified earlier are also included in order to gain a measure of the independent effect of parental welfare involvement on this welfare extensiveness measure.

The third model, at the other extreme, represents an attempt to measure the determinants of the intensity of welfare participation in the years since leaving home limiting the sample to those women who ever received welfare. The dependent variable is the proportion of survey years since leaving home that the woman and her family received welfare and the independent variables are identical to those in the "ever welfare" model defined above. Whereas the above models are attempts to measure, first, the determinants of welfare involvement for a representative cross-section (akin to the population group receiving welfare in any one calendar year), and second, the characteristics of the typical American woman who ever receives welfare, this final model represents an attempt to describe the characteristics of the woman (and her family) who has a need to receive welfare on a more continuing basis. As suggested earlier, the program and policy considerations relevant for this group may differ substantially from those applicable for the "one timer." Also, while this group may not represent a large proportion of the families receiving welfare, they certainly represent a disproportionate portion of the long term case load. To the extent that there is indeed an intergenerational propensity to maintain ties with the welfare rolls, the phenomenon is most likely to appear in this model.

Tables 9 through 12 include the full multivariate models where the outcomes are any welfare receipt in 1978 (1 = yes, 0 = no); A.F.D.C., food stamp, or other welfare receipt, respectively, in 1978 (1 = yes, 0 = no); ever received welfare (1 = yes, 0 = no); and, for those who ever received welfare, the proportion of surveys since leaving home in which welfare was received. All of the models in Tables 9, 11 and 12 are presented for two variants which include and exclude the parental background welfare and poverty variables, so as to permit a more careful consideration by the interested reader of the effects of these two background factors on the relationship between the other explanatory variables and the various outcomes. The explanatory variables for all of the models are defined in the tables.

Also, while ordinary least squares regression analysis is used for the welfare intensity model in Table 12, logit analyses are used for all the other models which have dichotomous dependent variables. Logit is used in these models to avoid the econometric problems associated with using ordinary least squares regression analysis with a dichotomous dependent variable (Theil, 1971).

Characteristics of the Welfare Population

Before considering the multivariate results, it is useful to examine the characteristics of the women who will be considered in this research. The tabular results in Appendix Tables A1 through A3 permit comparisons between women and their families who have never and ever received welfare, ever-welfare recipients who received welfare 25 percent or less of the survey years since leaving home and women who received welfare more than 25 percent of the survey years.[12] In addition, partial comparisons can be made with the group who received welfare in 1978, although the means for many of the variables (which are identical to those included in the forthcoming multivariate analyses) in this instance relate to cross-sectional (1978) characteristics.

On the basis of the tabular results in these appendix tables, it is fair to conclude that women who received welfare in more than 25 percent of the survey years are the most disadvantaged in terms of personal characteristics. In contrast, the least disadvantaged welfare population appears to be those women who received welfare less than 26 percent (but at least one percent) of the survey years. Intermediate between these two categories are women who "ever" received welfare and women who received welfare in 1978. Both of these categories include a proportion of women who have longer term attachment. Also, while not mentioned here in any detail, it is of some importance to note (as may be seen in Appendix Table A3) that, from a cross-sectional perspective, the group of women not receiving welfare in 1978 include relatively large proportions who have received welfare at some time or other since leaving their parents' home--10.5 percent for the white and 38.7 percent for the black non-welfare group in 1978. This observation is consistent with the knowledge that they have socio-demographic characteristics somewhat more congruent with the other welfare groups than do the respondents who have never received welfare.

The women who received welfare in more than 25 percent of the surveys have the least education completed, are most likely to be in poverty, be single or separated but with own children in the household, have a health problem, be black, and come from a background where their parents were in poverty and received welfare. In addition, they were least likely to live in the south or to be employed. The above results (with the exception of the education, race and the parental background variables) all relate to the proportion of survey years since leaving the parental home that the respondent and her family had the specified characteristics and as such strongly suggest an association between the intensity of welfare use and the continuing prevalence of selected socio-demographic, economic or geographic characteristics. The patterns of the results are generally similar when white and black respondents are considered separately and, although less pronounced, similar results may be seen when comparing these characteristics with the other welfare outcomes.[13]

Most of the above results are not surprising, as they are consistent with commonly held perceptions about the relationships between welfare status and socio-demographic characteristics as well as with the available literature noted earlier. The extent to which some of these characteristics are independent predictors of welfare and are differentially associated with the intensity (as opposed to the incidence) of welfare involvement is considered below.

Determinants of Welfare Receipt in 1978: A Cross-Sectional Analysis

The basic model presented in this section is akin to the multivariate cross-sectional research which has typically been carried out by other researchers. One significant difference, however, between this research and other work (such as that utilizing the PSID) is our specific focus on young women, using a relatively large sample. The PSID research, for example, generally has focused on a sample including all ages and both sexes introducing dummy variables to control for age and sex (Coe, 1981). To the extent that a number of the critical explanatory variables interact with age and/or sex, the sample used in this study will probably suggest more precisely the primary predictors of cross-sectional welfare access for young women. The rationales for including most of the independent variables in this cross-sectional analysis are for the most part fairly obvious. All the variables in this model are specified and defined in Table 9. Highest grade completed is included partly as a human capital proxy but, in addition, as a possible indicator of a respondent's knowledge of the welfare system. The first of these two interpretations would be consistent with an inverse association between education and welfare; the latter rationale suggests a positive association. The net effect remains unclear.

The poverty status variable is included primarily as a control variable; the intent of this analysis is to consider the association between a number of factors and welfare access independent of the propensity of the family to be in poverty.

A number of marital and family status variables are included because of their inherent importance as predictors of a need for income supplementation. It is anticipated that the presence of children, for women who are never married or separated, widowed or divorced, should be an important determinant of a need for welfare at a particular point in time in comparison with the reference group of women who are married, husband present or never married without children. Also, of course, women in this status are more likely to be eligible to receive A.F.D.C. payments. The welfare need of mothers with husbands present is somewhat more ambiguous, as is the welfare status of separated, widowed or divorced women who do not have children.[14]

After controlling for other status variables, it is hypothesized that women living in the south will have below average probabilities of receiving welfare, given the generally lower level of payments traditionally available in many southern states. Conversely, it is anticipated that women in metropolitan areas might be more likely to receive welfare because of easier access to welfare sources.

The predicted directions of association between having a health problem or working more extensively and receiving welfare are obvious. Aside from acting as controls, it is of some importance to note whether or not black and white women show similar associations between these two variables and the dependent variable(s). To the extent that there may be differences between the races in the nature and severity of health problems, the health variable may differentially affect the need for welfare assistance. Differences in the employment coefficient may suggest variations in the need or inclination for different categories of women to combine earnings and welfare as components of an overall income package.

The combined race model includes a zero-one dummy variable specifying whether the respondent is white or black. The earlier tabular results clearly indicated a higher level of welfare receipt by black women. The multivariate analysis will clarify whether or not substantial racial differences in welfare receipt remain after controlling for poverty status and other factors which are considered important independent determinants of welfare.[15]

The final two independent variables measure the economic status of the respondent's parental household in the years immediately before the respondent left her parental home--i.e., whether or not the parental family unit was in poverty or received welfare most of those years. The principal purpose of the parental welfare variable is to test whether any intergenerational transmission of a tendency to be on welfare remains after controlling for other factors (including parental poverty status) associated with welfare.

The dependent variable in this specific model, welfare receipt in 1978, permits estimation of the determinants of welfare for a typical cross-section of the population at one point in time. This is a fair representation of the population on the welfare rolls in a given year. From a program perspective, it most closely approximates the mix of welfare recipients typically requiring assistance in one calendar year. Table 10 includes comparable models which separately consider the determinants of A.F.D.C., food stamp and other welfare receipt.

The results in Table 9 are partially consistent with expectations.[16] For white women, less education, being separated or never married and having children in the home (in comparison with being single or married without children) and having a health problem predict welfare receipt in 1978. More extensive employment, however, does not have a depressing effect on welfare receipt. Also, there is no significant evidence of a positive connection between coming from a welfare background and receiving welfare oneself.[17]

For the black respondents, the education and family variables show similar associations with welfare receipt in 1978. However, having a health problem, which had been a significant predictor for white women is not significant. Conversely, more extensive employment is strongly predictive of less welfare receipt for black women whereas it was not a significant predictor for white young women.

It is also noteworthy that the parental welfare status variable is predictive of current welfare status for the black respondents. Whether this pattern is generalizable to all categories of welfare recipients will be clarified in subsequent sections. Finally, there is no evidence from the combined race model of any independent effect of race on welfare receipt in 1978 after controlling for all the other factors. On the basis of these results, it is perhaps fair to conclude that while a modest portion of the difference in welfare receipt between the races reflects differences in the likelihood of white and black women with particular characteristics to be on welfare, the largest part of the racial difference can be attributed to racial differences in socioeconomic or demographic characteristics. In particular, the greater probability that black women will be in poverty, have less education or have children and be head of their own household clearly accounts for a substantial portion of the racial difference in welfare receipt.

Variations in Determinants of Welfare Receipt by Type of Welfare Received

Because the 1978 survey results permitted elaboration of the kind of welfare a respondent received, the determinants of A.F.D.C., food stamps and "other welfare" were separately examined.[18] As was noted earlier, if the two major welfare sources, A.F.D.C. and food stamps are essentially determined by similar characteristics, this research is on firmer ground regarding any generalizations about welfare recipients and possible policy actions.

Table 10 indicates that for a majority of the explanatory variables of interest in this study, the overall cross-sectional model (in Table 9), the A.F.D.C. model and the food stamp model suggest similar patterns of statistical significance. Among the white respondents, education, poverty status and the family status variables are significantly associated with welfare receipt in all three models. The only significant exception is health status, which is not associated with AFDC receipt. This undoubtedly reflects the fact that AFDC receipt is contingent on having children which may be associated with above average health status.

With respect to the black respondents, women with children but without husbands are significantly more likely to receive welfare in general as well as receive food stamps and AFDC. Employment is also inversely associated with all categories of welfare receipt.

On the other hand, educational attainment and poverty status, which are overall predictors of welfare receipt are not significant predictors of receiving AFDC. They are, however, associated with food stamp receipt.

In contrast, the overall relationship between parental welfare receipt and welfare receipt by the respondents own family unit is solely a reflection of the modest significant association between parental welfare receipt and AFDC receipt by the respondent in 1978. In all likelihood, this association at least partly is due to the fact that women from large families have above average likelihoods of having larger families themselves (Mott and Haurin, 1982).[19] In any event, all of the above suggest that AFDC receipt by black families is perhaps more singularly associated with family dimensions than is true for white families.

It also may be noted for the black women that whereas the health variable shows no overall significant association with welfare receipt in 1978, it does show a marginal association with the "other welfare" dependent variable, the welfare category which includes special assistance to those with particularly serious health problems (e.g., and to the blind and disabled as well as supplementary security income for those in particularly severe economic circumstances). In this regard, having a health problem was also a predictor of "other" welfare receipt for white women. In any event, the above results suggest strong common threads between the various components of the welfare population as well as insights into its heterogeneity. For the most part, the common threads appear sufficiently dominant to warrant an overall examination of the determinants of longer and shorter term welfare receipt.

Finally, it may be noted that the race variable does not attain significance in the combined race version of any of the welfare component models. Thus, after controlling for the various socioeconomic and demographic factors which may differentiate the black from the white population, no independent effect of race on welfare receipt of any type remains.

Determinants of Ever Having Received Welfare Since Leaving the Parental Home

Whereas the above analyses examined the determinants of an individual receiving welfare at one particular point in time, this logit model considers what are the characteristics of individuals who ever receive welfare. Thus, in this model an individual who, for example, only accesses the welfare rolls once receives a weight equal to that of the individual who is on welfare every survey year.

The model essentially includes as explanatory variables longer term versions of many of the cross-sectional variables included in the 1978 cross-section model. That is, ever having received welfare since leaving the parental home is regressed on a series of variables specifying the proportion of the surveys since leaving home that the respondent was in the various marital/family statuses, in poverty, in a metropolitan area, in the south and so on. In addition, this model includes the same highest grade completed variable and background poverty and welfare variables as the preceding model. The rationales for including these variables in this model are essentially the same as those specified for including the cross-sectional variables in the cross-sectional model. They have been given the additional temporal dimension so that they would coincide temporally with a dependent variable which references all the survey years since leaving home. The variables and model are specified in Table 11.

Examining Table 11, it may be seen for the white respondents that there are a number of similarities in the pattern of association between the explanatory and dependent variables in the cross-section (1978) and ever-welfare models. Educational attainment is inversely related to ever receiving welfare and to welfare receipt in 1978. Having a child but no husband (whether never married or separated, divorced or widowed) is positively associated with receiving welfare in both models.

It is of some interest to note that southern residence in this model is an important predictor of below average welfare receipt, an association only marginally evidenced in the cross-section. This difference between the cross-sectional and longitudinal models may be a historical artifact; if southern residence was more predictive of below average welfare receipt in earlier years, it could well show up as a predictor in a longitudinal model but not be significant for a more recent cross-section.

Also, employment (in this case being the proportion of surveys in which the respondent worked 26 weeks or more) becomes an important predictor of ever receiving welfare for the white women whereas it was not a predictor of welfare receipt in 1978. Conversely, health, which was a predictor in the cross-section, no longer is significant in this ever-receipt model. It may be recalled that for white women the health factor in the 1978 cross-sectional model partially reflected the importance of health as a predictor of "other" welfare receipt. It may be that young women with short term relatively severe health problems sometimes require special but short-term assistance. However, for women in this age range, this may be a sufficiently rare event that over the long run, it is not a predictor of welfare need for the group as a whole. This will be clarified in the following section in which the association between these variables and the intensity of welfare receipt is considered. Finally, for the white women, it is important to note that, as in the cross-sectional model, there is no evidence of parental welfare receipt being predictive of a daughter's receiving welfare.

Shifting to the black respondents, it may be seen that the family status variables continue to be important predictors of welfare receipt, as they were in the cross-sectional model. Educational attainment, which had been significant in the cross-section, loses its significance in the ever-welfare model, as do the employment and the parental welfare variables. In contrast, the two geographic variables gain in significance. It is perhaps of some importance to note that the two variables with presumed significant human capital components are not useful predictors of whether or not a black woman ever receives welfare. These two variables were both significant in the white model. Aside from the poverty status variable, it appears that demographic and residence factors are the principal determinants of the black welfare population.

Also, it may be noted that the race variable in the combined race model does obtain significance although its importance is somewhat reduced when the parental background variables are added. Thus, there is some modest support for the thesis that after controlling for other factors, black young women are slightly more likely than their white counterparts to receive welfare at some time. Whether this is generalizable to the population strata which shows a more permanent attachment with the welfare roles will be considered in the following section.

As a final generalization, it appears that human capital based factors are more important predictors of whether or not a white woman ever receives welfare whereas location-specific variables matter more for blacks. For both groups, family-related variables are of major importance as predictors of whether a family unit ever receives welfare assistance.

Who Are the Welfare Repeaters?

In this final analytical section, the focus will be on determining the factors which differentiate those welfare respondents who tend to be repeaters from those who receive welfare less frequently. This is done by estimating (in an ordinary least squares model) the determinants of the proportion of survey years subsequent to leaving one's parents' home that women in the ever-welfare population receive welfare; in other words, which of the welfare recipients tend to receive welfare most frequently. The full models are indicated in Table 12. The independent variables are identical to those in the ever-welfare models.

For the white respondents, with the exception of the educational attainment variable (and the background poverty control variable), there are no differences between the factors which predict ever receiving welfare and frequently receiving welfare. That is, poverty status, the family variables, southern residence and employment operate in a similar manner as predictors of welfare in both models. Conversely, having a health problem or coming from a welfare background are not predictive of the intensity of welfare receipt for white women any more than they predicted ever receiving welfare.

What the above implies is that the population of white women who ever require assistance are essentially similar to those who repeatedly need help. Marital transitions when there are children present are important explanations for why white women may require welfare assistance at some point and why some white women stay on welfare. Employment discontinuities and southern residence apparently have the same impact.

In contrast, limited education is a predictor of a white woman receiving welfare at some time but is not associated with continuing on the welfare rolls. The significant inverse association between education and ever receiving welfare but lack of association in the welfare intensity models can perhaps be interpreted within the context of our earlier discussion; in the short run, the human capital component of the education variable may be dominant and white women with less schooling may have greater employment difficulties, thus requiring welfare assistance. In the longer run, more education may be associated with a greater knowledge of how the welfare system operates and this might balance out the human capital component of the education-welfare association.

The black model predicting the extensiveness of welfare receipt by the ever welfare population shows several basic similarities with the black ever-welfare model. There are, however, several important differences. As with all the other models, both black and white, the poverty and child status variables continue to be highly significant. As was true with the white women, single parent households require more extensive welfare assistance than their counterparts which do not include children.

Educational attainment and health status are not significant predictors of a need to repeatedly receive welfare. This result essentially parallels that of the ever-welfare black model as well as the white welfare intensity model. It is perhaps now also fair to generalize that health, after controlling for the other factors in the various models (including poverty and employment status) is not a major determinant of welfare receipt in either the short or longer run for black or white young women. The one significant exception to this is the earlier reported evidence that in the cross-section, some women with presumably transient disabilities require temporary disability assistance.

The rationale for the lack of significance for the education variable in both the ever-welfare and welfare intensity models is perhaps similar to that described above for the white respondents; the inverse associations anticipated for human capital reasons may perhaps be counterbalanced by the knowledge of welfare component with the net result being no association between education and welfare.

The employment variable, which showed no significant association with ever receiving welfare for black women, is, however, an important predictor of frequent welfare use. Whereas short term welfare need for black women and their families is associated most importantly with poverty status per se and family events, longer term involvement is also likely to be partly related to employment or the lack of it. This suggests that direct employment-related assistance can be an important deterrent to continuing welfare dependency existence, perhaps even more so for black than for white respondents.

Of course, over-riding all of these factors is the dominant thread of poverty which cuts across short and longer term welfare use. Although the poverty dimension certainly interacts in significant ways with many of the other predictive factors, the overall predictive power of all the welfare models is heavily determined by the poverty status dimension.

One additional significant finding in this final model is the importance of welfare background as a determinant of intensity of welfare utilization for the black respondents. The significant association between the welfare background variable and welfare receipt in the black cross-sectional model apparently reflects this association between the background variable and the group which shows a more permanent attachment with the welfare rolls. It may be recalled that this welfare background variable was not significant in the black ever-welfare model. For this racial group, short term welfare is associated with demographics; longer term attachment does appear to have a more permanent connotation, being associated not only with demographics and longer term employment attachment but also with a tendency to have come from a background which included welfare as part of the family income package. It should also be recalled that the demographic component undoubtedly reflected an above average propensity for both the mother's and daughter's generation to require AFDC assistance because of above average fertility.

Finally, it had been noted earlier in the tabular longitudinal analysis that black women on the welfare rolls were much more likely to repeatedly receive welfare than their white counterparts. However, in contrast with the pattern evidenced in the ever-welfare model, the insignificant race coefficient in the total race model in Table 12 suggests strongly that the difference in the intensity of welfare utilization between the races reflects differences between white and black women in other income and earnings availability, demographics, employability and family background factors. Thus, if there is a normative component in the racial difference in "willingness" to repeatedly go on welfare, the evidence is, at best, ambiguous. From an intra-generational perspective, there is marginal evidence in support of a greater tendency for black families to ever receive welfare, but there is no apparent racial difference in the propensity to repeatedly receive welfare--the dimension of welfare most commonly considered when the issue of continuing welfare attachment is raised. However, there is some cross-generational evidence of a racial difference as parental welfare attachment does appear to translate into an above average propensity for the children's generation to repeatedly access welfare among black but not among white families.

SUMMARY AND CONCLUSIONS

Data from the National Longitudinal Surveys document clearly that much of the increase during the 1970s in the propensity of young women and their families to be on welfare reflects the greater likelihood that women with children will seek assistance. This increasing tendency to be on the welfare rolls paralleled declines in the probability of the same group to be residing in poverty. Thus, it is reasonable to conclude that the decade of the 1970s witnessed fundamental changes in the relationship between poverty status and welfare status. This transition undoubtedly reflected both the loosening of welfare regulations as well as a greater normative acceptance, by families of both races, of the appropriateness of seeking welfare and being aware of welfare sources when in financial need.

In this regard, the importance of employment as a mechanism for getting and staying out of poverty and off the welfare rolls cannot be underestimated. For families with employed mothers, the percent in poverty declined over the decade whereas the poverty rate for families where the mother was not employed rose substantially. Concurrently with this trend in the employment-poverty association, sharp increases appeared in the percent of non-employed mothers seeking welfare, but only modest increases were evidenced among employed mothers.

Aside from the apparent direct effect which employment can have on reducing poverty and the need for welfare, the results certainly support the notion that substantial numbers of families use a variety of income sources to stay above the poverty line. Overall, 56 percent of 25 to 29 year old mothers in 1978 who were not in poverty but were on welfare were employed. Only 6 percent of their counterparts in poverty were employed, further evidence of the importance of employment in helping to raise families above subsistence. Conversely, these same statistics show that welfare, by itself, certainly does not significantly alleviate poverty. It is, however, an important income supplement which permits many families to avoid severe economic hardship.

The longitudinal dimension of the NLS data clearly shows the different conclusions which can be drawn using cross-sectional and longitudinal perspectives. About 7 percent of white and 31 percent of black women received welfare payments at some time during the year preceeding the 1978 survey. However, fully 1 of every 5 white and 2 of every 3 black young women and their families had a need for welfare at some point between 1968 and 1980. In addition, some of those women who used the welfare system required only brief assistance whereas others required continuing assistance. Various motivations lie behind these varying patterns: many families need assistance only to help with temporary crises; others, for a variety of reasons, are unable to cope over more extended time periods without help. This study strongly suggests that if a permanent welfare status is to be avoided, the cycles of dependence must be disrupted quickly. Once a family has been on the welfare rolls for two consecutive surveys, their probability of leaving the rolls on subsequent surveys is slight. Thus, if the causes of being on welfare are not quickly remedied, the likelihood is that a welfare recipient will remain on the rolls for a long time. From a program perspective, intervention earlier in the welfare "cycle" probably has a greater chance of having an impact. In particular, maximum payoff is likely if job-related assistance is proferred during the first year an individual (and her family) appears on welfare.

The longitudinal analyses also show the heterogeneity of this welfare population. For white women, demographics and employment inadequacy appear to be important predictors of needing both short and longer term assistance.

Employment assistance probably represents a critical mechanism for avoiding longer-term welfare dependency.

For black women, the relevance of demographics, particularly the presence of small children and the absence of a husband, are equally pervading as likely determinants of both shorter and longer term welfare attachment--independent of income level and other related characteristics. Also, perhaps even more than for whites, employment is a key program dimension if young black families are to move above the poverty line and off the welfare rolls.

Regarding the issue of whether or not there is a welfare class, the results are consistent with the notion that background can, in some instances, have a modest direct effect on welfare propensities. For black families, the results are somewhat suggestive that families with more enduring associations with the welfare system are indeed partly maintaining these ties because of childhood and early adult family influences. This influence may to a considerable degree reflect the likelihood that black women from large families are more likely to have more children themselves and to have them at an earlier age. Also, from a within-generation perspective there is modest evidence that black women are more likely to ever receive welfare than their white counterparts after controlling for the various other factors considered to be important predictors of welfare. There is, however, no longer-term racial distinction as race is not an independent predictor of longer-term welfare attachment.

If there is any evidence in support of a "welfare class," it reflects a tendency to pass certain orientations across generations, with no evidence supporting the idea that young blacks are more likely because of their own motivations to repeatedly require welfare assistance. Indeed, in the overall scheme of things, the significant parental welfare variable in the black welfare intensity model represents a trivial effect in comparison with the cumulative impact of all the other factors. It is useful to emphasize a final time that the reasons more young black families are on welfare are because they are poorer, have more employment difficulties and in some instances have different family circumstances. Black families in particular circumstances are not more likely than their comparably circumstanced white counterparts to repeatedly receive assistance.

Finally, it is useful to reiterate the importance of longitudinal in comparison with cross-sectional perspectives in evaluating program needs. Whereas the one-point-in-time welfare roll cross-section overstates the importance of the hard core welfare population in relation to a longitudinal mix of individuals who ever received welfare, it underrepresents the hard core population when considered from the viewpoint of a longer term mix of welfare cases. As has been demonstrated, hard core welfare recipients in actuality represent a relatively high proportion of the total rolls over an extended time period. To the extent that all welfare clients receive similar services, resources may not be allocated as effectively as they might be. The nature of the vocational and training assistance needed by the young women who have been on welfare a longer time period may differ considerably from the welfare transient. In any event, it needs to be emphasized that even the longer term recipient in this population is a young woman. To maintain her indefinitely on the welfare rolls with no significant effort being made to alleviate the causes for her welfare attachment is a disservice both to her and to the larger society.

Footnotes

[1] The original sample of 5,159 women 14 to 24 in 1968 had been reduced by attrition to about 3,500 by 1980. There is evidence of some modest attrition bias over that period selective of less educated respondents who in all likelihood would have had above average welfare access probabilities (Mott, 1982). Thus, the welfare statistics in this study may represent slight understatements of welfare probabilities over the period. There is no particular reason, however, to anticipate any biases in the multivariate analyses included in this study. Also, see Center for Human Resource Research, 1982 for more a detailed description of the young women's NLS data set.

[2] There is a parallel literature which focuses in an analogous manner on the association between poverty incidence over time, which draws similar conclusions. See for example Bumpass and Sweet, 1981; Hill, 1981; Coe, 1978.

[3] See Valentine (1968) for a comprehensive statement of the philosophical approaches which have been brought to bear on this issue.

[4] Reported welfare receipt levels for 1980 are significantly lower than in 1978 and suggest a discontinuity inconsistent with evidence from other sources. Partly for this reason, the more comprehensive welfare statistics from the 1978 survey are used for trend analysis as well as for the multivariate cross-sectional analyses below.

[5] Some of the apparent incongruity between the welfare and poverty percentages may reflect definitional problems. Poverty status references whether or not the income of the family unit during the preceding year was above or below the poverty line (footnote 11 describes the poverty definition in somewhat greater detail). On the other hand, if the respondent's family received welfare at any time during the preceding year they are reported here as receiving welfare. Thus, there can be families whose overall family income for the year put them above the poverty level even though they may have been in poverty and receiving welfare at some time during the year.

[6] It should be noted that the years since 1978 have witnessed declines in the real value of the average A.F.D.C. payment per recipient and some leveling off in case loads (Newspaper Enterprise Association, 1982, p. 217). The discussion here focuses on the peak growth years of welfare recipiency which occurred during the late 1960s and early 1970s.

[7] See, for example, Chapter 8 of Moore and Brent (1982), for an extensive discussion of how A.F.D.C. coverage varies between the states.

[8] As already mentioned, this included interviews each year between 1968 and 1973, 1975, 1977, 1978 and 1980. Thus, there are three (approximate) calendar years (1973, 1975 and 1978) for which welfare data were not available, reflecting the fact that the information was typically collected for the twelve months preceding the survey date and the interviews were completed during the first few months of the years specified above. In my estimation, the only potentially significant substantive bias implied by the above is that

transition probabilities for staying on welfare from one survey to the next will understate actual annual transition probabilities for the three survey intervals which included two calendar years (1973-1975, 1975-1977 and 1978-1980).

[9] As indicated in footnote 8, there are three years in the 13 year period for which information is not available. Thus, the ever welfare statistics in the most technical sense should be interpreted as "ever received welfare during ten years within a thirteen year period," and the welfare transition probabilities are in all likelihood slight understatements of actual year to year transition probabilitites. Also, for all except the last two surveys, welfare access implies welfare access by the family unit. In the last two surveys, it means welfare access by respondent or spouse. For ease of presentation, the text will frequently be couched in terms such as "respondent's access to welfare over the period" even though the above caveats apply.

[10] If the respondent only lived with her parents in 1968, a value of 1 on the variable meant the family received welfare that year. If she lived with them in 1968 and 1969, a value of 1 implied welfare receipt at least one of the two years. If she lived with her parents through 1970, a value of 1 meant welfare was received at least two of the three years; similarly, residence with her parents through 1971 required welfare receipt at least 2 of the 4 years and residence through 1972 at least 3 of the 5 years in order to receive a code of 1 on the welfare variable. Otherwise the respondent was coded zero on this variable.

[11] The official poverty definition is based on the relationship between the family's income level, the number of family members, and whether or not they are living in an urban or rural area in the relevant year. See, for example, the following U.S. Bureau of the Census publications: All in the Current Population Report series, "The Extent of Poverty in the United States, 1959 to 1966," P-60, No. 54, and "Revision in Poverty Statistics, 1959 and 1968," P-23, No. 28, and "Characteristics in the Low Income Population, 1971," P-60, No. 86.

[12] The separate categorization of the women into the latter two groups was admittedly made on pragmatic grounds. It allocates reasonably large numbers to both categories.

[13] While not specified in the appendix tables, a comparison of the characteristics of women who received A.F.D.C. or food stamps in the year preceding the 1978 survey was also made. The characteristics of women receiving A.F.D.C. or food stamps were similar, except for the following: A.F.D.C. women were slightly more likely to have children but no husband, which is not surprising given the stated objective of the A.F.D.C. program. Also, A.F.D.C. women were less likely to have a health problem, perhaps consistent with the fact that they are more likely to have borne children.

[14] The author acknowledges that the causal association between marital status and welfare can be quite complex. Women without husbands may have above average need to access welfare. Conversely, at least in some instances, husbands may leave a household in order to enhance the probability that the wife and children are eligible for welfare. Resolution of this issue is

beyond the scope of this research.

[15] As already indicated in the preceding footnote, there are a number of causal issues whose resolution is beyond the scope of this research. The association between employment and welfare is one important case in point. A particular individual might chose to work less because of the knowledge that welfare is available. This writer believes, however, that the dominant causal direction is the opposite. Women unable to obtain adequate employment will in some instances be obligated to access welfare in order to maintain even a minimal subsistence level of existence. If this supposition is correct, the inclusion of weeks worked as an independent variable is not only legitimate but necessary if the model is to be properly specified.

Obviously there are also important causal associations between employment and poverty status. With the employment variable removed from the analysis, the poverty variable, not surprisingly, increases modestly in size.

[16] The analysis will focus on the models which include the parental poverty and welfare variables.

[17] To the extent that welfare was being received in both the parental and (subsequently) respondents' households because of the welfare assistance being provided for the child of the respondent, cross-generational welfare propensities reported in this research may be overstated.

[18] The results in the "other" welfare model should be interpreted cautiously given the small number of respondents in this category. Several independent variables were deleted from this model (and from the AFDC model) in order to obtain model convergence. This was because one category in these dummy independent variables showed total symmetry (or lack of symmetry) with the dependent variable. Statistically, the deletion of such variables does not affect the results for the other variables in the model.

[19] The reader might question this interpretation as only the black parental welfare variable attains significance in the AFDC model. In this regard, it may be of interest to note that the black and white coefficients are about equal in magnitude.

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Table 1 Distribution of Young Women by Residence, Parenthood Status and Race: 1968, 1973 and 1978

	1968			1973			1978		
	Total	White	Black	Total	White	Black	Total	White	Black
All respondents	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Living with parents-no children	58.9	59.8	50.8	17.7	17.7	16.8	4.6	4.3	6.9
Living with parents-children	2.8	1.6	11.7	2.9	1.7	11.7	2.8	2.0	9.1
Living in own household-no children	18.3	18.7	15.9	30.1	31.8	17.1	24.4	25.7	14.4
Living in own household-children	20.1	19.9	21.6	49.4	48.8	54.4	68.1	68.0	69.6

Table 2 Welfare and Poverty Status for Young Women by Residence, Parenthood Status and Race: 1968, 1973 and 1978

	1968			1973			1978		
	Total	White	Black	Total	White	Black	Total	White	Black
All respondents	(3408)	(2492)	(877)	(3408)	(2492)	(877)	(3408)	(2492)	(877)
% in poverty	14.5	9.8	51.1	10.5	7.3	36.1	8.5	5.8	30.3
% on welfare	4.6	2.5	21.0	8.0	5.3	29.8	9.7	7.0	31.3
Has own children	(851)	(556)	(287)	(1885)	(1291)	(576)	(2481)	(1762)	(696)
% in poverty	15.4	8.5	49.0	13.1	8.7	40.4	9.9	6.3	34.6
% on welfare	7.4	4.3	21.9	11.6	7.9	34.1	12.0	8.7	35.9
Has no children	(2557)	(1936)	(590)	(1523)	(1201)	(301)	(927)	(730)	(181)
% in poverty	14.2	10.1	51.9	7.6	5.8	27.4	5.4	4.7	13.7
% on welfare	3.8	2.0	20.6	4.1	2.6	21.4	4.0	3.1	14.3
Respondents living with parents	(2098)	(1516)	(554)	(723)	(461)	(251)	(299)	(155)	(137)
% in poverty	14.2	8.6	56.3	12.0	4.9	48.5	12.0	5.2	33.2
% on welfare	5.0	2.4	24.5	9.9	5.4	34.8	12.4	8.5	25.3
Has own children	(133)	-	-	(144)	-	-	(128)	-	-
% in poverty	36.6			42.6			16.4		
% on welfare	21.3			30.8			18.5		
Has no children	(1965)	-	-	(579)	-	-	(171)	-	-
% in poverty	13.1			7.8			9.3		
% on welfare	4.2			6.5			8.7		
Respondents in own household	(1310)	(976)	(323)	(2685)	(2031)	(626)	(3109)	(2337)	(740)
% in poverty	15.0	11.6	41.9	10.1	7.8	31.2	8.2	5.8	29.7
% on welfare	4.0	2.7	15.3	7.5	5.2	27.8	9.5	6.9	32.4
Has own children	(718)	(513)	(198)	(1741)	(1244)	(480)	(2353)	(1711)	(620)
% in poverty	12.5	8.0	45.1	11.7	8.3	36.1	9.6	6.4	33.4
% on welfare	5.5	4.1	15.4	10.5	7.5	31.5	11.8	8.6	36.0
Has no children	(592)	(463)	(125)	(944)	(787)	(146)	(757)	(626)	(120)
% in poverty	17.6	15.5	37.4	7.5	7.1	14.6	4.6	4.2	10.9
% on welfare	2.4	1.1	15.1	2.6	1.7	16.0	3.1	2.3	14.9

Sample: Respondents who were interviewed in all survey years between 1968 and 1980. Sample sizes in parentheses.

Table 3 Percent of Families in Poverty Receiving Welfare by Residence, Parenthood Status and Race: 1968 and 1978

	Total		White		Black	
	1968	1978	1968	1978	1968	1978
All respondents in poverty	22.4	57.3	15.8	46.1	32.0	74.5
With children	26.5	65.2	21.3	54.0	29.1	79.6
Without children	21.1	22.8	14.6	22.3	33.3	24.8
Living with parents	28.2	41.0	21.4	17.1	36.0	53.9
Not living with parents	13.3	59.3	9.2	48.0	22.9	78.9
With children	22.6	65.5	21.3	54.2	24.6	82.2
Without children	6.0	24.4	2.4	23.7	20.0	28.5

Table 4 Percent on Welfare and Percent in Poverty by Parenthood Status and Employment Status: 1968, 1973 and 1978

	Age 20-24						Age 25-29					
	1968			1973			1973			1978		
	Total	Children	No children	Total	Children	No children	Total	Children	No children	Total	Children	No children
All respondents	(1249)	(578)	(671)	(1570)	(683)	(887)	(1252)	(931)	(321)	(1459)	(952)	(507)
% receiving welfare	4.1	6.9	2.1	8.5	16.6	3.2	7.3	8.1	5.1	9.7	14.1	2.7
% in poverty	10.8	14.0	8.5	11.6	16.8	8.2	8.9	10.0	6.1	8.1	10.5	4.2
Employed	(655)	(194)	(461)	(929)	(300)	(629)	(648)	(394)	(257)	(929)	(495)	(434)
% receiving welfare	2.4	6.9	0.9	3.8	10.3	1.5	4.3	5.7	2.3	4.8	9.2	0.9
% in poverty	7.7	13.6	5.7	7.0	9.2	6.3	5.2	7.7	1.7	3.5	3.9	3.2
Not employed	(594)	(384)	(210)	(641)	(383)	(258)	(604)	(537)	(67)	(530)	(457)	(73)
% receiving welfare	6.1	6.9	4.7	15.7	21.2	8.2	10.6	9.8	17.4	18.3	19.0	14.1
% in poverty	14.5	14.2	14.9	18.6	22.4	13.4	13.0	11.5	25.1	16.2	17.2	10.2

Note: Sample sizes in parentheses.

Table 5 Trends in Selected Employment Characteristics by Poverty Status and Welfare Status: 1968, 1973 and 1978

	1968			1973			1978		
	Labor force part. rate	Percent employed	Mean weeks worked	labor force part. rate	Percent employed	Mean weeks worked	Labor force part. rate	Percent employed	Mean weeks worked
All women									
20-24 years old									
All respondents	58.1	51.9	26.3	65.0	60.2	25.9	-	-	-
Respondents in poverty	47.5	37.0	16.6	51.0	37.5	14.1	-	-	-
Respondents on welfare	36.9	29.1	15.6	41.6	27.1	10.8	-	-	-
Respondents in poverty and on welfare	39.4	30.8	16.6	42.0	24.8	8.7	-	-	-
Respondents not in poverty but on welfare	38.4	30.1	15.9	43.9	31.6	14.5	-	-	-
25-29 years old									
All respondents	-	-	-	54.0	51.1	21.3	68.8	64.1	23.8
Respondents in poverty	-	-	-	37.0	29.8	12.2	41.8	27.8	10.3
Respondents on welfare	-	-	-	40.7	31.4	13.1	47.7	35.0	14.7
Respondents in poverty and on welfare	-	-	-	38.6	25.5	11.4	28.3	9.3	7.3
Respondents not in poverty but on welfare	-	-	-	41.9	36.6	13.1	58.2	51.2	20.8
Women with children									
20-24 years old									
All respondents	36.0	30.1	14.7	47.8	41.3	17.1	-	-	-
Respondents in poverty	38.4	29.7	13.6	39.8	22.9	8.4	-	-	-
Respondents on welfare	36.4	30.0	15.2	41.1	24.7	9.4	-	-	-
Respondents in poverty and on welfare	40.0	32.4	17.9	39.1	20.1	6.6	-	-	-
Respondents not in poverty but on welfare	34.8	28.8	13.3	53.1	37.1	15.5	-	-	-
25-29 years old									
All respondents	-	-	-	42.8	40.3	16.2	55.5	50.5	18.5
Respondents in poverty	-	-	-	37.9	31.6	12.4	32.6	18.2	7.9
Respondents on welfare	-	-	-	39.0	30.7	12.8	46.4	32.5	13.3
Respondents in poverty and on welfare	-	-	-	38.5	27.6	12.2	24.5	5.8	5.4
Respondents not in poverty but on welfare	-	-	-	35.6	30.0	11.4	64.2	56.2	22.8

Table 6 Distribution of Women "Ever" Receiving Welfare by Number of Surveys Reporting Welfare and Race

(Percentage distribution)

	White	Black
Total	100	100
One survey	49	21
Two surveys	16	15
Three surveys	12	13
Four surveys	7	11
Five surveys	5	8
Six surveys	5	7
Seven surveys	2	8
Eight surveys	1	7
Nine surveys	2	5
Ten surveys	1	4

Table 7 Distribution of Total Welfare Occurrences Over the Ten Survey Period in Relation to Number of Surveys Respondent Reports Welfare Receipt by Race

	White	Black
Single occurrence	.20	.05
Two occurrences	.13	.07
Three occurrences	.14	.10
Four occurrences	.11	.10
Five occurrences	.10	.10
Six occurrences	.12	.10
Seven occurrences	.05	.13
Eight occurrences	.04	.14
Nine occurrences	.06	.12
Ten occurrences	.05	.09

Table 8 Welfare Transition Probabilities by Race

	White		Black	
Probability of remaining on welfare				
2 surveys if on welfare one survey	.40	(597)[a]	.59	(830)
3 surveys if on welfare 2 successive surveys	.67	(212)	.77	(435)
4 surveys if on welfare 3 successive surveys	.67	(125)	.73	(314)
5 surveys if on welfare 4 successive surveys	.83	(68)	.77	(216)
6 surveys if on welfare 5 successive surveys	.70	(54)	.85	(154)
7 surveys if on welfare 6 successive surveys	.84	(26)	.77	(117)
8 surveys if on welfare 7 successive surveys	.76	(21)	.84	(70)
9 surveys if on welfare 8 successive surveys	.91	(11)	.83	(46)
10 surveys if on welfare 9 successive surveys	-		.92	(26)

[a] Sample sizes in parentheses.

Table 9 Determinants of Receiving Welfare in 1978: Logit Coefficients

(asymptotic t-ratios in parentheses)

	Total		White		Black	
Highest grade completed	-0.401[d]	-0.376[d]	-0.430[d]	-0.405[d]	-0.378[e]	-0.395[e]
	(4.83)	(4.54)	(4.29)	(4.02)	(2.17)	(2.05)
Ratio of family income to poverty threshold	-0.006[a]	-0.006[a]	-0.010[a]	-0.010[a]	-0.005[a]	-0.005[a]
	(4.22)	(4.35)	(4.12)	(4.16)	(2.79)	(2.72)
Never married with children	2.068[a]	2.122[a]	2.356[b]	2.574[b]	2.162[c]	2.022[c]
	(3.02)	(3.01)	(1.82)	(1.90)	(1.60)	(1.36)
Married, husband present with children	-1.807[d]	-1.752[d]	-0.897	-0.882	-3.627[e]	-3.456[e]
	(3.26)	(3.09)	(1.31)	(1.28)	(2.55)	(2.23)
Separated/widowed/divorced with children	1.894[a]	1.985[a]	1.475[b]	1.614[b]	1.997[c]	1.981[c]
	(3.17)	(3.27)	(2.05)	(2.24)	(1.44)	(1.31)
Separated/widowed/divorced without children	0.103	0.200	-0.438	-0.154	1.208	1.219
	(0.12)	(0.23)	(0.43)	(0.15)	(0.47)	(0.54)
Race (black = 1)	0.854[e]	0.381	-	-	-	-
	(2.48)	(0.97)				
Living in metropolitan area	-0.427	-0.371	-0.266	-0.186	-1.127	-1.260
	(1.22)	(1.05)	(0.64)	(0.44)	(1.50)	(1.50)
Living in South	-0.399	-0.392	-0.621	-0.693[c]	0.057	0.216
	(1.14)	(1.09)	(1.27)	(1.41)	(0.09)	(0.32)
Had health problem	0.772[b]	0.791[b]	1.391[a]	1.301[a]	-1.229	-1.181
	(1.81)	(1.84)	(2.79)	(2.58)	(1.02)	(0.92)
Number of weeks worked in year	-0.047[a]	-0.044[a]	-0.003	-0.002	-0.108[a]	-0.104[a]
	(5.32)	(5.10)	(0.24)	(0.19)	(5.22)	(5.08)
Received welfare most years with parents	-	0.555[c]	-	-1.176	-	1.223[b]
		(1.30)		(1.26)		(1.99)
In poverty most years with parents	-	0.648[c]	-	0.951[c]	-	-0.036
		(1.62)		(1.63)		(0.05)
Constant	5.444	4.845	5.205	4.747	8.717	8.255
N	1021	1021	798	798	223	223

NOTE: Universe = (1) must reside with parents in 1968, (2) must have left parents by 1973 and (3) interviewed all surveys 1968-1980. All of the independent variables (with the exception of highest grade completed, poverty status and weeks worked) are coded 1 if respondent is in specified status and zero otherwise.

[a] One-tailed significance at .01 level.
[b] One-tailed significance at .05 level.
[c] One-tailed significance at .10 level.
[d] Two-tailed significance at .01 level.
[e] Two-tailed significance at .05 level.
[f] Two-tailed significance at .10 level.

Table 10 Determinants of Receiving Welfare in 1978 By Welfare Type: Logit Coefficients

(asymptotic t values in parentheses)

	AFDC			Food stamps			Other		
	Total race	White	Black	Total race	White	Black	Total race	White	Black
Highest grade completed	-0.074	-0.247^{e}	0.247	-0.328^{d}	-0.321^{d}	-0.429^{e}	-0.206^{e}	-0.205	-0.384
	(0.77)	(2.28)	(1.59)	(4.02)	(3.20)	(2.32)	(2.25)	(1.53)	(1.77)
Ratio of family income to poverty threshold	-0.004^{a}	-0.011^{a}	-0.002	-0.005^{a}	-0.012^{a}	-0.002^{c}	-0.003^{b}	-0.014^{a}	-0.001
	(2.76)	(2.95)	(1.17)	(3.61)	(4.06)	(1.34)	(1.66)	(3.51)	(0.42)
Never married, with children	4.410^{a}	(2)	3.339^{a}	2.290^{a}	2.530^{b}	2.761^{b}	1.858^{a}	(2)	0.896
	(3.84)		(2.64)	(2.99)	(1.85)	(2.04)	(2.54)		(0.89)
Married, husband present, with children	-0.163	(2)	-1.692	-1.153^{f}	-1.050	-1.107	(2)	(2)	(2)
	(0.14)		(1.14)	(1.78)	(1.32)	(0.80)			
Separated/widowed/ divorced with children	3.809^{a}	2.313^{a}	3.115^{a}	2.321^{a}	1.323^{a}	3.293^{a}	2.152^{a}	0.961^{c}	1.527^{c}
	(3.48)	(3.15)	(2.46)	(3.36)	(1.61)	(2.41)	(3.64)	(1.28)	(1.52)
Separated/widowed/ divorced without children	(2)	(2)	(2)	0.662	-0.647	3.427^{f}	2.504^{d}	0.537	4.858^{d}
				(0.71)	(0.57)	(1.70)	(3.43)	(0.48)	(2.66)
Race (black = 1)	0.156	-	-	0.489	-	-	-0.157	-	-
	(0.28)			(1.18)			(0.27)		
Living in metropolitan area	-0.867	-0.246	-1.866	0.007	0.245	-0.426	-0.166	-0.701	(2)
	(1.70)	(0.43)	(1.96)	(0.02)	(0.51)	(0.52)	(0.33)	(1.14)	
Living in South	-0.589	(2)	0.527	-0.240	-0.880^{c}	0.944^{c}	-0.667	0.306	-2.399^{b}
	(1.20)		(0.81)	(0.64)	(1.55)	(1.44)	(1.26)	(0.46)	(2.00)
Had health problem	-0.728	0.069	-0.881	0.572	1.075^{b}	-0.937	1.445^{a}	2.253^{a}	1.452^{c}
	(1.13)	(0.08)	(0.97)	(1.25)	(1.91)	(0.88)	(3.03)	(3.34)	(1.41)
Number of weeks worked in past year	-0.050^{a}	-0.017	-0.076^{a}	-0.046^{a}	-0.010	-0.084^{a}	-0.009	0.049	-0.067^{a}
	(4.76)	(1.09)	(4.32)	(5.21)	(0.78)	(5.37)	(0.85)	(2.79)	(2.45)
Received welfare most years with parents	0.595	0.994	1.058^{c}	0.126	-0.771	0.485	0.096	(2)	0.628
	(1.08)	(1.02)	(1.60)	(0.28)	(0.80)	(0.83)	(0.17)		(0.72)
In poverty most years with parents	0.253	0.188	-0.775	0.534	0.931^{c}	-0.266	1.129^{b}	0.837	1.371^{c}
	(0.46)	(0.21)	(1.08)	(1.27)	(1.41)	(0.42)	(2.07)	(0.99)	(1.34)
Constant	-1.199	1.508	-2.788	3.141	3.808	4.891	-1.322	-0.405	1.013
N	1021	798	223	1021	798	223	1021	798	223

1. NOTE: See Table 9 for statistical significance glossary and universe specification.
2. Variable excluded from this model for statistical reasons. See footnote 19.

Table 11 Determinants of Ever Receiving Welfare in Any Survey Year Since Leaving Parental Home: Logit Coefficients

(asymptotic t ratios in parentheses)[1]

	Total		White		Black	
Highest grade completed	-0.233[d]	-0.220[d]	-0.246[d]	-0.224[d]	-0.211[f]	-0.189
	(4.46)	(4.19)	(4.08)	(3.70)	(1.86)	(1.59)
% of surveys living in poverty	5.656[a]	5.548[a]	5.304[a]	5.177[a]	7.194[a]	7.459[a]
	(8.55)	(8.30)	(6.55)	(6.29)	(5.46)	(5.44)
% of surveys never married	3.185[a]	3.185[a]	6.720[b]	6.527[b]	2.220[a]	2.039[b]
with own children	(4.29)	(4.21)	(2.01)	(1.95)	(2.49)	(2.23)
% of surveys married, spouse	0.647[f]	0.323[f]	0.642	0.626	0.468	0.487
present with children	(1.80)	(1.81)	(1.51)	(1.48)	(0.67)	(0.69)
% of surveys separated, divorced,	3.200[a]	3.246[a]	3.627[a]	3.703[a]	1.989[b]	1.867[b]
widowed, with children	(5.71)	(5.75)	(5.22)	(5.31)	(2.04)	(1.90)
% of surveys separated, divorced,	1.436	1.452	1.708	1.797[f]	0.695	0.342
widowed, without children	(1.51)	(1.54)	(1.56)	(1.68)	(0.34)	(0.17)
Race (black = 1)	0.848[a]	0.623[b]	-	-	-	-
	(3.50)	(2.26)				
% of surveys in metropolitan area	0.018	0.044	-0.184	-0.159	0.838[c]	0.794[c]
	(0.08)	(0.18)	(0.69)	(0.59)	(1.46)	(1.37)
% of surveys in South	-0.828[a]	-0.829[a]	-0.813[a]	-0.859[a]	-0.901[b]	-0.821[b]
	(3.52)	(3.47)	(2.86)	(2.97)	(2.08)	(1.83)
% of surveys with health problem	0.211	0.247	-0.237	-0.135	1.716[c]	1.819[c]
	(0.35)	(0.41)	(0.33)	(0.19)	(1.35)	(1.43)
% of surveys worked 26	-0.856[a]	-0.820[b]	-0.969[b]	-0.898[b]	0.179	-0.134
weeks or more	(2.35)	(2.25)	(2.27)	(2.10)	(0.23)	(0.18)
Received welfare most years	-	0.314	-	0.159	-	0.538
with parents		(0.94)		(0.29)		(1.15)
In poverty most years	-	0.316	-	0.782[b]	-	-0.401
with parents		(1.10)		(2.12)		(0.89)
Constant	0.754	0.511	1.121	0.719	0.342	0.058
N	1192	1192	936	936	256	256

NOTE: Universe = (1) must reside with parents in 1968, (2) must have left parents by 1973 and (3) interviewed all surveys 1968-1980. All of the independent variables (excluding the last two and highest grade completed and race) reference the proportion of years since leaving the parental home that the respondent was in the particular status.

[1] See Table 9 for significance level glossary.

Table 12 Determinants of Proportion of Survey Years Receiving Welfare Since Leaving Parental Home for Respondents Ever Receiving Welfare: Ordinary Least Squares Unstandardized Regression Coefficients

(t values in parentheses)[1]

	Total		White		Black	
Highest grade completed	.002	.001	-.000	.001	-.007	-.005
	(0.42)	(0.22)	(0.00)	(0.16)	(0.96)	(0.67)
% of surveys living in poverty	.394[a]	.396[a]	.392[a]	.387[a]	.358[a]	.366[a]
	(8.92)	(8.95)	(6.43)	(6.28)	(5.38)	(5.79)
% of surveys never married with children	.316[a]	.281[a]	.475[a]	.475[a]	.279[a]	.215[a]
	(5.99)	(5.18)	(5.27)	(4.97)	(3.95)	(3.19)
% of surveys married, spouse present, with children	-.053	-.063	-.055	-.056	-.007	-.036
	(1.34)	(1.59)	(1.08)	(1.08)	(0.10)	(0.54)
% of surveys separated, divorced, widowed, with children	.256[a]	.240[a]	.229[a]	.237[a]	.301[a]	.240[a]
	(5.22)	(4.87)	(3.45)	(3.49)	(3.96)	(3.30)
% of surveys separated, divorced, widowed, without children	-.051	-.093	-.001	.003	-.341	-.436
	(0.44)	(0.80)	(0.01)	(0.02)	(1.22)	(1.66)
Race (black = 1)	.020	.006	-	-	-	-
	(0.80)	(0.22)				
% of surveys in metropolitan area	.011	.015	-.019	-.020	.128[a]	.129[a]
	(0.45)	(0.63)	(0.60)	(0.62)	(2.82)	(3.01)
% of surveys in South	-.094[a]	-.085[a]	-.109[a]	-.114[a]	-.052[c]	-.012
	(3.79)	(3.37)	(3.22)	(3.29)	(1.43)	(0.33)
% of surveys with health problem	.058	.059	.025	.029	.052	.030
	(1.12)	(1.15)	(0.34)	(0.39)	(0.69)	(0.43)
% of surveys worked 26 weeks or more	-.175[a]	-.171[a]	-.150[a]	-.150[a]	-.229[a]	-.247[a]
	(4.59)	(4.50)	(2.91)	(2.89)	(3.74)	(4.26)
Received welfare most years with parents	-	.075[a]	-	-.004	-	.131[a]
		(2.50)		(0.08)		(4.26)
In poverty most years with parents	-	-.026	-	.029	-	-.094
		(0.98)		(0.72)		(2.87)
Constant	.252	.265	.293	.275	.295	.288
R^2 (adj.)	.678	.683	.623	.619	.694	.733
F ratio	54.03	46.93	24.64	20.38	31.12	31.49
N	278	278	144	144	134	134

NOTE: Universe = (1) must reside with parents in 1968, (2) must have left parents by 1973 and (3) interviewed all surveys 1968-1980. All of the independent variables (excluding the last two and highest grade completed and race) reference the proportion of years since leaving the parental home that the respondent was in the particular status.

[1] See Table 9 for significance level glossary.

Appendix Table A1 Mean Characteristics of Respondents Who Ever Received and Never Received Welfare Since Leaving Parental Home

Characteristic[1]	Ever received welfare			Never received welfare		
	Total	White	Black	Total	White	Black
Years of education completed, 1978	11.8	12.0	11.5	13.6	13.6	12.8
Percent of surveys in poverty[2]	29.7	23.5	47.3	4.0	3.9	5.1
Percent of surveys never married with child in household[2]	10.6	3.6	30.6	0.3	0.1	3.9
Percent of surveys married with child in household[2]	50.5	55.9	35.1	47.1	46.5	57.7
Percent of surveys separated/widowed/ divorced with child in household[2]	15.8	14.0	20.8	2.3	2.0	6.8
Percent of surveys separted/widowed/ divorced without child in household[2]	2.3	2.7	1.1	2.9	3.0	1.5
Percent of surveys living in central city or suburb of SMSA[2]	72.5	68.9	82.7	71.5	71.2	76.4
Percent of surveys living in South[2]	27.7	22.7	42.2	30.7	29.0	63.9
Percent of surveys reporting a health problem[2]	9.0	8.2	11.3	5.5	5.6	4.5
Percent of surveys worked 26 weeks or more in past year[2]	40.1	40.2	39.7	61.3	61.2	64.6
Percent black	25.9	-	-	4.8	-	-
Percent with parents in poverty most surveys[3]	29.1	19.2	57.2	7.7	5.6	50.2
Percent with parents receiving welfare most surveys[3]	19.7	9.6	48.6	2.8	1.9	19.6
Number of respondents	278	144	134	914	792	122

[1] Weighted mean characteristics.

[2] Percent of surveys between when respondent left parental home and 1980 in specified status.

[3] Fifty percent or more of surveys which respondent lived in parental home between 1968 and 1972.

Appendix Table A2 Mean Characteristics of Respondents Who Ever Received Welfare More or Less than 26 Percent of the Surveys Since Leaving Parental Home[1]

Characteristic	Received welfare 1-25 % of surveys			Received welfare 26% or more of surveys		
	Total	White	Black	Total	White	Black
Years of education completed, 1978	12.1	12.2	11.8	11.5	11.6	11.4
Percent of surveys in poverty[2]	15.3	13.8	25.4	45.5	39.1	55.0
Percent of surveys never married with child in household[2]	2.8	0.0	21.8	19.3	9.5	33.7
Percent of surveys married with child in household[2]	60.3	62.3	46.5	39.7	45.6	31.1
Percent of surveys separated/widowed/divorced with child in household[2]	31.0	28.5	48.8	47.8	35.6	65.7
Percent of surveys separated/widowed/divorced without child in household[2]	2.3	2.4	1.8	2.2	3.2	0.9
Percent of surveys living in central city or suburb of SMSA[2]	69.4	68.8	73.7	75.9	69.1	85.9
Percent of surveys living in South[2]	32.1	27.7	62.1	22.9	14.5	35.3
Percent of surveys reporting a health problem[2]	5.8	5.6	6.9	12.6	12.4	12.9
Percent of surveys worked 26 weeks or more in past year[2]	46.1	44.2	59.7	33.3	33.7	32.7
Percent black	12.8	-	-	40.4	-	-
Percent with parents in poverty most surveys[3]	22.3	16.9	59.2	36.5	23.0	56.5
Percent with parents receiving welfare most surveys[3]	8.1	6.2	20.5	32.5	15.0	58.4
Number of respondents	129	89	40	149	55	94

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[1] Weighted mean characteristics.

[2] Percent of surveys between when respondent left parental home and 1980 in specified status.

[3] Fifty percent or more of surveys which respondent lived in parental home between 1968 and 1972.

Appendix Table A3 Mean Characteristics of Respondents Who Were Receiving Welfare or Not Receiving Welfare in 1978[1]

Characteristic	Received welfare			Didn't received welfare		
	Total	White	Black	Total	White	Black
Years of education completed, 1978	10.9	10.8	11.1	13.4	13.4	12.3
Poverty ratio, 1978[2]	1.32	1.33	1.29	3.79	3.85	2.84
Percent never married with child in household, 1978	19.5	9.5	37.8	0.9	0.3	10.4
Percent married with child in household, 1978	27.1	36.6	9.7	65.8	65.9	64.2
Percent separated/widowed/divorced with child in household, 1978	42.9	43.0	42.7	3.9	3.3	12.1
Percent separated/widowed/divorced without child in household, 1978	3.9	4.8	2.2	5.2	5.4	1.5
Percent living in central city of suburb of SMSA, 1978	71.6	60.9	91.0	72.1	71.7	77.7
Percent living in South, 1978	23.8	20.5	29.8	30.8	28.7	61.0
Percent reporting a health problem, 1978	21.2	23.0	18.1	7.5	7.5	7.1
Weeks worked in past year, 1978	17.2	20.6	11.1	31.5	30.9	40.8
Percent of surveys receiving welfare since leaving parental home	56.1	48.0	70.7	3.0	2.4	12.5
Percent ever receiving welfare since leaving parental home	-	-	-	12.3	10.5	38.7
Percent black	35.5	-	-	6.5	-	-
Percent with parents in poverty most surveys[3]	34.6	20.9	59.5	9.6	7.0	47.3
Percent with parents receiving welfare most surveys[3]	27.3	5.9	66.4	4.2	3.0	21.8
Number of respondents	108	47	61	913	751	162

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[1] Weighted mean characteristics.

[2] The poverty ratio is the ratio of family income during 1977 to the poverty line for that year for families of given size. See text note 7.

[3] Fifty percent or more of surveys which respondent lived in parental home between 1968 and 1972.